UNITED STATES DISTRICT COURT EASTERN DISTRICT OF NEW YORK

JAMES GLOSTER, Individually and On Behalf of All Others Similarly Situated,

Plaintiff,

v.

STANDARD LITHIUM LTD., ROBERT MINTAK, KARA NORMAN, and ANDREW ROBINSON,

Defendants.

Case No. 1:22-cv-00507-EK-VMS

AMENDED CONSOLIDATED **CLASS ACTION COMPLAINT**

JURY TRIAL DEMANDED

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Lead Plaintiff Curtis Arata ("Plaintiff"), individually and on behalf of all others similarly situated, by and through his attorneys, alleges the following upon information and belief, except as to those allegations concerning Plaintiff, which are alleged upon personal knowledge. Plaintiff's information and belief is based upon, among other things, counsel's investigation, which includes without limitation: (a) review and analysis of regulatory filings made by Standard Lithium Ltd. ("Standard Lithium" or the "Company") with the United States ("U.S.") Securities and Exchange Commission ("SEC"); (b) review and analysis of press releases and media reports issued by and disseminated by Standard Lithium; and (c) review of other publicly available information concerning Standard Lithium.

I. NATURE OF THE ACTION

- 1. This is a securities fraud class action on behalf of persons and entities that purchased or acquired Standard Lithium Ltd. common stock between May 19, 2020, and July 12, 2021 on the OTCQX and between July 13, 2021, and February 3, 2022, on the NYSE, inclusive (the "Class Period"), against the Defendants, seeking to pursue remedies under the Securities Exchange Act of 1934 (the "Exchange Act").
- 2. During the Class Period, Standard Lithium held itself out as focused on commercializing its "proprietary" direct lithium extraction ("DLE") process, called "LiSTR" (selective lithium extraction, referred to herein as "LiSTR" or "LiSTR DLE"), which Defendants claimed could achieve the remarkable recovery rate of about 90% of lithium extracted from brine, and, according to Defendants, would produce 100-150 tons of battery quality lithium carbonate

¹ "Defendants" refers collectively to Standard Lithium, Ltd. ("Standard Lithium," or the "Company"), Robert Mintak, Kara Norman, and Andrew Robinson.

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per year (by comparison, previously-used lithium extraction processes typically recovered only 40%-60% of lithium from brine).

- 3. Standard Lithium focuses its lithium extraction efforts in Southern Arkansas, specifically the Smackover Formation region, where numerous companies have had successful bromine production operations for years, but where prior lithium extraction efforts have failed.
- 4. On May 19, 2020, Defendants announced that they had successfully commissioned Standard Lithium's Demonstration Plant in Southern Arkansas, which would utilize the Company's lithium extraction technology and be used to demonstrate "proof of concept" and conduct commercial feasibility studies by extracting lithium from brine produced by LANXESS, a global chemicals company with 150,000 acres of permitted brine operations in Southern Arkansas. Defendants claimed that the Demonstration Plant was operating on a 24/7 basis to extract lithium from brine in the area. Standard Lithium had previously executed a term sheet for a lucrative potential joint venture with LANXESS, which was contingent on, inter alia, Standard Lithium achieving proof of concept.
- 5. "Proof of concept" generally refers to the achievement of a certain method or process in order to demonstrate its feasibility, or a demonstration in principle with the goal of confirming that a concept or theory has practical use. For Standard Lithium, "proof of concept" meant demonstrating that it could utilize its "proprietary" lithium extraction and processing technology to extract lithium from tail brine at the Demonstration Plant and convert it to batterygrade lithium carbonate. More specifically, Standard Lithium's process was supposed to have a 90% or greater lithium recovery rate and produce 100-150 tons of battery-grade lithium carbonate per year.

- 6. On December 3, 2020, Defendants announced achievement of a major milestone, claiming the Company had successfully shown proof of concept: "Standard Lithium Successfully Completes Proof-of-Concept of Modern Lithium Extraction and . . . Makes Better Than Battery Quality Lithium Carbonate."
- 7. The announcement garnered a flurry of positive publicity, with analysts commenting that a lucrative joint venture with LANXESS was imminent. The Company completed a prospectus offering later that month, with net proceeds of about C² \$32 million.
- 8. Defendants continued to tout the Company's supposedly successful operations, leading to Standard Lithium's shares being uplisted from the OTCQX exchange (an over-the-counter exchange) to the American NYSE in July 2021 pursuant to a Registration Statement on Form 40-F that the Company filed with the SEC on June 30, 2021.
- 9. Standard Lithium's share price thereafter soared to a Class Period high of \$12.92 per share on October 27, 2021.
- 10. Investors were thus stunned when, on November 18, 2021, Blue Orca published a report revealing that, among other things, Standard Lithium was *far* from achieving proof of concept. Based on its analysis of Standard Lithium's quarterly filings with the Arkansas Oil & Gas Commission (which the Company did not disclose to investors), Blue Orca reported that contrary to Standard Lithium's public representations, the Company was achieving far less than its proclaimed 90% lithium recovery rate at the Demonstration Plant. In fact, the Company's average lithium recovery rate was just *13%* over the last 12 months, from October 2020 to October 2021, and that over time its recovery rate was declining. Blue Orca further reported that: "the Demonstration Plant has been operational since May 2020 and is supposed to produce <u>100-150</u>

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² "C" refers to Canadian dollars.

tonnes of lithium carbonate per year[,]" "[y]et according to the Arkansas regulatory records, the Demonstration Plant has produced just 66 pounds of lithium carbonate to date—or USD 900 worth This begs the obvious question: if the Demonstration Plant is up and running and the technology is viable, why hasn't the Company produced any more than de minimis amounts of lithium carbonate? We think it is because, as the data suggests, the technology is neither as viable nor as scalable as the Company projects."

- 11. On this news, Standard Lithium's share price dropped by nearly 19%, to close at USD \$8.01 per share on November 18, 2021, damaging investors.
- 12. Following the Blue Orca report, Standard Lithium issued a press release vehemently denying the information in the report and seeking to discredit it. The Company stated, among other things, that "Blue Orca Capital's interpretation of lithium recovery rates is incorrect and underestimates lithium extraction efficiencies."
- 13. On February 3, 2022, Hindenburg Research published another shocking report that revealed, among other things, that:
 - Standard claims its proprietary 'LiSTR' technology differentiates it from other hopefuls. LiSTR is based on three patent applications it purchased in 2018 from an apparent one-man engineering shop. Two of the applications have already been rejected as 'unpatentable' by the USPTO.
 - Standard's flagship project has been delayed by nearly 18 months with key partner Lanxess recently admitting that Standard's extraction technology has still not demonstrated 'proof of concept'. Lanxess says it has 'no timeline' for development[.]
 - Even now, the pilot plant appears to be operating at a fraction of its boilerplate capacity, according to data we reviewed through FOIA. Standard's technology solution seems to be struggling out of the gate.

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³ Bold/underline emphasis in original; bold/italic emphasis added.

14. On this news, Standard Lithium's share price dropped by 27%, to close at USD \$5.29 per share on February 3, 2022, further damaging investors.

II. JURISDICTION AND VENUE

- 15. The claims asserted herein arise under and pursuant to Sections 10(b) and 20(a) of the Exchange Act (15 U.S.C. §§ 78j(b) and 78t(a)) and Rule 10b-5 promulgated thereunder by the SEC (17 C.F.R. § 240.10b-5).
- 16. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. § 1331 and Section 27 of the Exchange Act (15 U.S.C. § 78aa).
- 17. Venue is proper in this Judicial District pursuant to 28 U.S.C. § 1391(b) and Section 27 of the Exchange Act (15 U.S.C. § 78aa(c)). Substantial acts in furtherance of the alleged fraud or the effects of the fraud have occurred in this Judicial District. Many of the acts charged herein, including the dissemination of materially false and/or misleading information, occurred in substantial part in this Judicial District.
- 18. In connection with the acts, transactions, and conduct alleged herein, Defendants directly and indirectly used the means and instrumentalities of interstate commerce, including the United States mail, interstate telephone communications, and the facilities of a national securities exchange.

III. PARTIES

A. Plaintiff

19. Lead Plaintiff Curtis Arata ("Plaintiff"), as set forth in the previously filed certification (Dkt. No. 15-2) and in the concurrently filed amended certification, incorporated by reference herein, purchased Standard Lithium securities at artificially inflated prices during the

Class Period and suffered damages as a result of the federal securities law violations and false and/or misleading statements and/or material omissions alleged herein.

B. Defendants

- 20. Defendant Standard Lithium Ltd. ("Standard Lithium" or the "Company") is organized under the laws of the Province of British Columbia, Canada with principal executive offices located at Suite 110, 375 Water Street, Vancouver, British Columbia, Canada, V6B 5C6. The Company was originally named Tango Capital Corp. In 2016, the Company shifted its focus from oil and gas to acquiring and developing lithium brine projects in the U.S. In November 2016, the Company changed its name to Standard Lithium.
- 21. From June 19, 2017 until July 12, 2021, Standard Lithium's securities traded on the OTCQX Markets (the "OTC") under the trading symbol "STLHF". The OTCQX is the top tier of the three marketplaces for over-the-counter trading of stocks in the United States. Companies listed on the OTCQX are subject to SEC regulation. Beginning on July 13, 2021 and continuing through the end of the Class Period, Standard Lithium's common shares traded on the NYSE under the trading symbol "SLI."
- 22. Defendant Robert Mintak ("Mintak" or "Defendant Mintak") served as Standard Lithium's Chief Executive Officer and a Director of the Company since March 21, 2017 and throughout the Class Period.
- 23. Defendant Kara Norman ("Norman" or "Defendant Norman") served as Standard Lithium's Chief Financial Officer since May 1, 2017 and throughout the Class Period.
- 24. Defendant Andrew Robinson ("Robinson" or "Defendant Robinson") served as Standard Lithium's President and Chief Operating Officer since April 25, 2017 and throughout the

Class Period. In addition, Robinson has been a Director of the Company since June 5, 2017, a position he also maintained throughout the Class Period.

- 25. Defendants Mintak, Norman and Robinson are sometimes referred to herein collectively as the "Individual Defendants."
- 26. The Individual Defendants possessed the power and authority to control the contents of Standard Lithium's SEC filings, press releases, and other market communications. The Individual Defendants were provided with copies of Standard Lithium's SEC filings and press releases alleged herein to be misleading prior to or shortly after their issuance and had the ability and opportunity to prevent their issuance or to cause them to be corrected. Because of their positions with Standard Lithium, and their access to material information available to them but not to the public, the Individual Defendants knew that the adverse facts specified herein had not been disclosed to and were being concealed from the public, and that the positive representations being made were then materially false and misleading. The Individual Defendants are liable for the false statements and omissions pleaded herein.
- 27. Standard Lithium and the Individual Defendants are collectively referred to herein as "Defendants."

IV. SUBSTANTIVE ALLEGATIONS

A. Background Of Standard Lithium's Business

- 28. Standard Lithium is focused on developing lithium-brine bearing properties in the United States utilizing its proprietary Direct Lithium Extraction ("DLE") technology, called "LiSTR", and purification processes, primarily in Southern Arkansas.
- 29. Lithium is used in the production of alloys and glass, chemical synthesis, and in rechargeable storage batteries, referred to as lithium-ion batteries. Lithium-ion batteries are used

in a wide variety of products, from portable electronics to vehicle and aerospace applications. Lithium is a common geological commodity but it is difficult to extract due to its density. Commercial lithium arises from two main sources: underground brine deposits and mineral ore deposits. Most lithium is extracted from liquid brine reservoirs and only a few sources are considered economically viable. Lithium extraction, such as the processes employed by Standard Lithium, is a set of chemical processes whereby lithium is isolated from a source and converted to a saleable form of lithium, typically in the form of lithium carbonate.

- The U.S. represents less than 2% of global lithium production and no new lithium 30. mine has been built in the U.S. in nearly 60 years. Most lithium today comes from Australia, China, and a South American region that covers parts of Argentina, Chile, and Bolivia. Pursuant to Executive Order 13817, which former president Donald Trump signed on December 20, 2017, lithium was identified as one of 35 "critical minerals" that the government wants to boost domestic production and reduce its reliance on imports for. U.S. imports of lithium have nearly doubled since 2014 due in part to rising demand from Tesla, a joint venture between South Korean energy giant SK Innovation Co. and Ford Motor Company to produce electronic vehicle batteries in the U.S., and others building battery plants in the country, according to a U.S. Geological Survey. As such, prices for lithium have skyrocketed in recent years, increasing about 400% in 2021. Due to soaring demand for electric vehicle batteries and energy storage, some estimates point to lithium demand doubling over the next few years, with the lithium-ion battery market on track to reach \$127 billion by 2027.
- 31. During the Class Period, Standard Lithium touted its "proprietary" LiSTR DLE technology, which purports to extract battery grade lithium from brine with a recovery rate of 90%. Lithium recovery rates using conventional processes typically range from 40%-60%.

- 32. Standard Lithium acquired the rights to its LiSTR technology via a transaction with an individual named Craig Johnstone Brown ("Brown"). On November 27, 2018, the Company entered into a share purchase agreement with Brown to acquire all of the issued and outstanding
- the process for selective extraction of lithium from brine. As consideration for the transaction with

share capital of a company then-owned by Brown, which held the intellectual property rights to

Brown, the Company completed a series of cash payments and share issuances to Brown totaling

C \$1,050,000 and 1,000,000 shares; the acquisition was completed on December 13, 2018.

- 33. Standard Lithium's flagship project is located in Southern Arkansas, where it tested and attempted to prove the commercial viability of extracting lithium from brine using its LiSTR DLE technology from a region called the Smackover Formation.
- 34. Prior attempts to extract lithium via alternative methods had been unsuccessful in Southern Arkansas because of the relatively poor concentration of lithium in the Smackover Formation. For example, in 2011, Albermarle, a successful multinational chemicals company with significant experience in bromine operations in Southern Arkansas, announced it had developed a proprietary technology to extract lithium from the Smackover brines at its bromine production facilities which are in the same location as Standard Lithium's operations. But in 2014, Albermarle announced that the project costs—both capex and operating—were prohibitively high, and Albermarle ceased its lithium extraction efforts. Albermarle's CEO stated in August 2021 that Albermarle would likely not consider revisiting lithium extraction efforts in Southern Arkansas until later in the decade, due to the "technical challenges" and "cost profile" involved.
- 35. In May 2018, Standard Lithium commissioned its lithium extraction demonstration plant (the "Demonstration Plant") for proof-of-concept and commercial feasibility studies pursuant to an agreement with LANXESS Corporation ("LANXESS"), a global specialty chemicals

Project."

company based in Germany. LANXESS owns and operates its bromine extraction business out of three facilities in Southern Arkansas, and Standard Lithium's Demonstration Plant would be based out of LANXESS's South Plant facility. At LANXESS's South Plant facility where Standard Lithium's Demonstration Plant was based, Standard Lithium would seek to extract lithium using its LiSTR DLE technology from tailbrine produced by LANXESS. Standard Lithium's effort to achieve commercial viability of its lithium extraction processes at the LANXESS property, including Standard Lithium's Demonstration Plant operations, is referred to as the "LANXESS"

- 36. On November 9, 2018, Standard Lithium and LANXESS signed a term sheet for a contemplated joint venture to coordinate in the commercial development of lithium extracted from the Smackover Formation in Southern Arkansas. The joint venture provided that LANXESS would contribute lithium extraction rights and grant access to its existing infrastructure and Standard Lithium would contribute existing rights and leases held in the Smackover Formation and the Demonstration Plant being developed on the South Plant property, as well as its proprietary extraction processes and all relevant intellectual property rights.
- 37. Upon Standard Lithium demonstrating "proof of concept", LANXESS would provide funding to the joint venture to allow for the commercial development of the project. The final terms of the joint venture and any funding arrangement remained subject to completion of due diligence, Standard Lithium's proof of concept, normal economic viability studies to confirm the technical feasibility and economic viability of the project, and the negotiation of definitive agreements between the parties.
- 38. Standard Lithium undertook minipilot scale process work in Q1 2019 to provide data for the design of the full-scale Demonstration Plant. The Company then completed initial

installation of the Demonstration Plant in mid-October 2019. The Demonstration Plant was designed to utilize the Company's LiSTR DLE technology to extract lithium from tailbrine produced by LANXESS's South Plant facility to produce lithium chloride, which it would then convert into battery quality lithium carbonate by using either conventional processes or the Company's lithium carbonate crystallization technology (referred to as its "SiFT" technology). Defendants claimed the Demonstration Plant would achieve production of 100-150 tons per year of lithium carbonate with a lithium recovery rate of about 90%.

- 39. On August 6, 2019, the Company announced that it had received a favorable preliminary economic assessment ("PEA") for the LANXESS Project from Worley. The PEA was based on the assumption that Standard Lithium would achieve its proof of concept lithium recovery rate of about 90%. Defendants publicly filed the PEA with the SEC in a Form 40-F dated June 30, 2021.
 - 40. Among the pertinent conclusions stated in the PEA were:
 - The total Indicated LANXESS Li-Brine Resource is estimated at 3,140,000 tonnes of LCE [lithium carbonate equivalent]. The volume of resources will allow the lithium bearing brine extraction operations to continue well beyond the currently assumed 25 years
 - The results of the geological evaluation and resource estimates for the Preliminary Economic Assessment of LANXESS Smackover Project justifies development of the project to further evaluate the feasibility of production of lithium carbonate.
 - The experience gained from the long-term operations of the brine extraction and processing facilities on the LANXESS controlled properties decreases the risk related to sustainability of the brine extraction from the Smackover Formation.
 - The well-developed infrastructure and availability of a qualified work force will decrease the risks related to construction, and commissioning and operating of the lithium extraction and lithium carbonate processing plants
 - The results of the bench scale testing and mini-plant process testing program increase the level of confidence in the key parameters for the operating cost estimate.
 - Improvements made to process efficiency, particularly the reduction of reagents and chemicals consumption, will improve the economics of the Project.
 - The discounted cash flow economic analysis, at a discount rate of 8%, indicates that the Project is economically viable under the base case conditions. The key economic indicators, NPV = US\$989,432,000 (post-tax) and IRR= 36% (post-tax),

are very positive.

- Standard Lithium Announces The Successful Operation Of Its Demonstration В. Plant And Successful Commissioning Of Its SiFT Plant
- 41. The Class Period begins on May 19, 2020, when the Company announced in a press release that it had successfully commenced operations at the Demonstration Plant. The press release stated:

[Standard Lithium] is pleased to announce the successful start-up of the Company's industrial-scale Direct Lithium Extraction Demonstration Plant at Lanxess' South Plant facility in southern Arkansas (the "Site"). This first-of-its kind plant, using Standard Lithium's proprietary LiSTR Direct Lithium Extraction technology, has been successfully commissioned during the first part of 2020 and is now operating on a 24/7 basis, extracting lithium directly from Lanxess' tail brine The LiSTR demonstration plant is designed to continuously process an input tail brine flow of 50 gallons per minute (gpm; or 11.4 m3/hr) from the Lanxess South Plant, which is equivalent to an annual production of between 100-150 tonnes per annum of Lithium Carbonate.

42. Stifel Nicolaus Canada reported on May 26, 2020 that according to Mintak,

[W]ith the start-up of the demo plant, the company has achieved a significant milestone towards achieving proof of concept and a final investment decision (FID) for the project. As a reminder, LANXESS has agreed to provide access to its tail brine, manage the operations of the project, market the off-take and provide 1000% of the project financing, once [Standard Lithium] establishes proof of concept for its technology. In return, we expect that LANXESS will take a 65% interest in the project, with the balance being owned by [Standard Lithium].

- 43. The Arkansas Oil & Gas Commission granted Standard Lithium authorization to develop and test the commercial viability of its operations at the Demonstration Plant for a period of 18 months—or until November 16, 2021.
- 44. On June 10, 2020, Standard Lithium announced in a press release that it "has now started the commissioning phase" of an industrial-scale lithium carbonate crystallization pilot plant in Vancouver, British Columbia. The purpose of the pilot plant in British Columbia (the "SiFT Plant") was to utilize the Company's "proprietary SiFT technology" to take the intermediate product made by the Company's LiSTR direct lithium extraction process [at the Demonstration

Plant] ... and convert it into a battery-quality (or better) lithium chemical as used by manufacturers in the lithium ion battery supply chain."

45. Analysts reacted extremely positively to the Company's announcement. For example, on June 12, 2020, Streetwise Reports reported:

[Standard Lithium] is working toward the all-important technology proof of concept, consummation of the JV with Lanxess and a final investment decision Lanxess is committed to provide project finance to the JV when testing and the [preliminary feasibility study] are successful for them, and Standard will probably be an estimated 30% JV partner[.]

- 46. The June 12, 2020 Streetwise report included a short interview with Mintak:
- <Q Streetwise >: [C]ould you indicate to the audience your expectations for [preliminary feasibility study] economics, compared to [preliminary economic assessment] economics?
- <A Robert Mintak >: The PEA that was released in Q3/2019 took a very conservative stance. We believe the data from the demonstration plant, combined with some other key cost input efficiencies like reagent recovery, will improve the already attractive project numbers by a healthy percentage.
- 47. In a July 15, 2020, press release, the Company announced positive updates on the Demonstration Plant's extraction of lithium and the SiFT Plant's ability to turn it into batterygrade material. The Company represented to investors that both projects had proven successful, stating that the Demonstration Plant "has been operating successfully since late May, and has been producing concentrated lithium chloride product, as per its design[,]" and that the SiFT Plant "commissioning phase" "has been successfully completed[.]" The Company further stated:

Once the lithium chloride product from the [Demonstration Plant] is optimized, it will be shipped in bulk to Richmond, BC for final conversion in the SiFT plant. Transport of bulk volumes of polished lithium chloride product will continue to be shipped from Arkansas to BC, until such time that border restrictions are lifted, and it is possible to move the [BC Plant] and Standard Lithium staff from BC to Arkansas.

- C. Standard Lithium Announces It Has Achieved The Key "Proof Of Concept" **Milestone At The Demonstration Plant**
- 48. On December 3, 2020, the Company announced in a press release that it had met its major milestone—it had successfully achieved "proof-of-concept." The press release stated:

The Company is pleased to announce that it has successfully completed the startto-finish proof of concept of its modern lithium processing technology. Successful operation of the technology at pre-commercial continuous scale has directly extracted lithium from brine in Arkansas and produced a purified, concentrated intermediate product (LiCi solution) which has been converted to better than battery quality lithium carbonate final product.

49. In the same press release, Defendant Robinson was quoted as saying:

[T]his is an extremely important milestone for Standard Lithium. managed to demonstrate the first of its kind continuous extraction of lithium from Smackover brine and we've converted it into better than battery quality material. Not only that, but we've done it at a large scale, which now allows us to keep on working towards commercialisation. This proof of concept validates our approach[.]

50. The announcement led to analysts issuing positive coverage of the Company, commenting that the JV with LANXESS was imminent given the "unquestionable success" of Standard Lithium's proof of concept as reported by Defendants. For example, on December 7, 2020, H.C. Wainwright reported that "this milestone provides merit to Standard Lithium's lithium extraction proven proprietary technology[,]" reiterating its Buy rating and further stating:

[A]s Standard Lithium continues to advance and de-risk its proprietary lithium extraction project, we remain excited for the scaling of operations, given the unquestionable success of Standard Lithium's proof-of-concept.

51. Cannacord Genuity stated in a report dated January 11, 2021, that it was initiating coverage of Standard Lithium and believed a formal joint venture with LANXESS was "imminent."

- 52. Stifel Nicolaus Canada stated in a report dated January 13, 2021, "we expect that a formal joint venture agreement between [Standard Lithium] and Lanxess could be announced in H1 2021."
- 53. Roth Capital Partners stated in a report dated January 18, 2021, that "we anticipate an official signing of the JV agreement with LANXESS [] by the end of Q1 2021. Lastly, we believe it is likely the commercial facility Phase 1 construction could begin during Q3 2021."
 - D. Standard Lithium Conducts A Canadian Offering, Raising Proceeds In Excess of C \$34.5 Million To Fund Its Operations, And Then Uplists To The U.S. NYSE
- 54. In a December 2, 2020, press release, Standard Lithium announced a public offering of common shares and filed a prospectus in connection therewith with the securities regulatory authorities in each of the Provinces of Canada, other than the Province of Quebec. The Company stated that it intended to use the net proceeds of the offering to fund the efforts at the LANXESS property. On December 8, 2020, the Company announced that it intended to issue up to 13,650,000 shares at a price of C \$2.20 per share.
- 55. On December 18, 2020, the Company announced in a press release that it had closed its marketed public offering, including the full exercise of the over-allotment option. A total of 15,697,500 common shares of the Company were issued at a price of C \$2.20 per share for aggregate gross proceeds of C \$34,534,500. The Company announced that the net proceeds of the offering would "be used to fund ongoing work programs to advance the LANXESS Project, including ongoing testing and optimization work underway at the [SiFT Plant] and the [Demonstration Plant], preliminary engineering work to advance commercial development of the Company's proprietary lithium extraction process, negotiation and development of a joint venture with LANXESS Corporation, and for working capital and general corporate purposes."

- 56. On June 30, 2021, Standard Lithium filed a Form 40-F Registration Statement with the SEC in connection with its request to list on the NYSE.
- 57. In a July 8, 2021, press release, Standard Lithium announced that it had received approval to list on the NYSE, with trading expected to commence on July 13, 2021, under the ticker symbol "SLI," and that the common shares of the Company would also continue to trade on the TSX Venture Exchange under the new ticker symbol "SLI."
- 58. In a Form 6-K and press release, filed with the SEC on July 13, 2021, the Company announced that its common shares had started to trade on the NYSE that same day.
- 59. On September 10, 2021, Standard Lithium filed a Registration Statement with the SEC on Form F-10, which would allow the Company to make offerings of up to \$250,000,000 of common shares, preferred shares, warrants, subscription receipts, units, debt securities, or any combination thereof, from time to time over a 25-month period.

E. Blue Orca Publishes A Report That Partially Reveals The Truth Concerning Standard Lithium's Technology And Progress

60. On November 18, 2021, Blue Orca reported that Standard Lithium's claims of achieving proof of concept (*i.e.*, achieve a 90% lithium recovery rate and production of 100-150 tons per year of lithium carbonate) at its Demonstration Plant were not supported by previously undisclosed data filed by the Company with Arkansas state regulators (the Arkansas Oil & Gas Commission, referred to herein as the "AOGC" or the "Commission"), which indicated significantly lower recovery rates. Specifically, the Blue Orca Report stated, in relevant part:

Arkansas Regulatory Filings Indicate Lithium Recovery Rates Far Less than Forecasted. Standard Lithium has repeatedly claimed that its DLE technology will achieve 90% recovery rates at its Demonstration Plant, built on the LANXESS AG ("LANXESS") (FRA: LXS) bromine facility in Southern Arkansas. Yet undisclosed to investors, production data submitted by Standard Lithium to the Arkansas Oil & Gas Commission (the "AOGC") appears to show that the Demonstration Plant, which has been operating for 18 months, is barely achieving a fraction of this projected recovery rate. We

calculate that in the past 12 months, based on the data, the Demonstration Plant achieved an average lithium recovery rate of just 13%. The data also indicates that the Demonstration Plant is displaying negative scale, with recovery rates substantially worse the longer the plant operates and the more brine it processes. We corroborated our analysis with an expert in DLE. In our opinion, this data suggests that the technology is neither economically viable nor scalable.

Standard Lithium's valuation is predicated on the claim that its technology can achieve high lithium recovery rates of 90% (vs 40%--60% for conventional processes).[] Standard Lithium claims that it has successfully proven this technology at its Demonstration Plant, which has been operating "full-time" since May 2020 in Southern Arkansas. But undisclosed to investors, independent data submitted by Standard Lithium to the Arkansas regulator appears to show otherwise.

When Standard Lithium completed commissioning of its Demonstration Plant in May 2020, it claimed that one of the key features of the technology was that it increased Lithium recovery efficiencies to more than 90%. The Company repeated this claim at its ribbon cutting ceremony in September 2020.

Not only is this key to Standard Lithium's bull narrative, but it is also the key assumption underpinning the Company's lofty NPV forecasts. For example, Standard Lithium forecasts that its LANXESS Project is worth USD 989 million based on the assumption that it can recover 90% of the lithium from the brine.

Despite being in operation for 18 months, Standard Lithium has been coy about disclosing any details to investors regarding the performance of the plant, only claiming that testing at the plant has been "successful." We disagree.

The Arkansas Oil & Gas Commission (the "AOGC") is the state-level regulatory body responsible for oil and gas related activities in Arkansas. Pursuant to its operating permit, Standard Lithium must disclose the Demonstration Plant's performance to the AOGC. Specifically, the order dictates that Standard Lithium must report the total quantities of tail-brine processed, and of lithium chloride and lithium carbonate produced from the Demonstration Plant every quarter.

Although difficult to find, the AOGC publishes these quarterly reports on its website, making them publicly available for any investor to review. Because the government website is difficult to navigate, we think that these filings have not been widely read or understood by the market.

Given that the Demonstration Plant was commissioned in May 2020 (with a ribbon cutting in September 2020), we would expect the results to generally match the Company's claims, especially regarding the efficiency of the technology.

Yet the records show that in the last 12 months, Standard Lithium's Demonstration Plant processed 6.2 million gallons of raw brine, containing a total of 5.1 tonnes of lithium (based on the reported average concentration of 217 mg/L). From this, the data indicates that the Demonstration Plant produced **only** 30 thousand gallons of lithium chloride.

* * *

The concentration of this lithium chloride is not included in the Arkansas data. However, in its June 2021 prospectus, Standard Lithium stated that the Demonstration Plant will produce lithium chloride at a "high" concentration of 3,000-5,000 mg/L.

Even if we assume that the concentration of the lithium chloride produced by the Demonstration Plant is at the top end of the Company's forecasted range, we calculate that the implied average recovery rate for the Demonstration Plant over the past 12 months was just 13%.

The entire purpose of the pilot facility is to show that the technology is scalable. Yet, the data shows that as the Demonstration Plant has continued to operate, recovery rates have plummeted. In Q3 2021, the Arkansas data shows that the plant processed over 2 million gallons of brine yet generated only 8,983 gallons of lithium chloride. Despite processing 6x more brine in Q3 2021 than Q2 2020, the data shows that Standard Lithium recovered 62% less lithium chloride.

Not only does this undermine the viability of the technology but we think this data undermines the narrative that the technology is commercially scalable, as recovery rates appear to be decreasing as the Demonstration Plant processes more brine.

To verify our analysis, we submitted both the Arkansas data and the Company's technical reports to a DLE expert, who confirmed not only our calculations but also our conclusion that the Arkansas data indicated that the Demonstration Plant was falling far, far short of Standard Lithium's claims.

We also spoke to a former Albemarle executive, who told us that the Demonstration Plant should be able to perform at least as well as the Company projects in its commercial scale forecasts. This is because as the process scales up, projects such as this typically become less efficient.

Standard Lithium cannot claim that the Demonstration Plant is in ramp up phase. The Demonstration Plant has been running full time since May 2020, meaning that it is now almost at the end of its two-year operating life as per the Company's financial disclosures. In their operating permit, the AOGC actually stipulated that the plant should not run for more than 18 months.

Standard Lithium's NPV and stock price rest on the notion that it is able to achieve recovery rates of 90%. Yet the Arkansas records show that the Demonstration Plant is recovering far less lithium than forecasted. In our opinion, the results at the Demonstration Plant are a damning indictment of the viability of the project and the value of Standard Lithium's technology.4

- 61. As Blue Orca reported, the data filed with AOGC by Standard Lithium is difficult to find—it cannot be found by searching AOGC records under "Standard Lithium" or "LANXESS." Further compounding this difficulty, the AOGC's November 19, 2018 Order approving the deployment of Standard Lithium's Demonstration Plant and requiring Standard Lithium to file quarterly reports (as described in the Blue Orca Report) named the applicants as the "Great Lakes Chemical Corporation, and Arkansas Lithium Corporation." Great Lakes Chemical Corporation is the U.S.-based affiliate and wholly owned subsidiary of LANXESS, and the Arkansas Lithium Corporation is one of Standard Lithium's wholly-owned subsidiaries. Defendant Mintak was the President, Secretary, Treasurer of Arkansas Lithium Corporation.
- 62. Following publication of the Blue Orca Report, Standard Lithium's common share price fell USD \$1.86 per share, or 18.84%, to close at USD \$8.01 per share on November 18, 2021.
- 63. On November 18, 2021, the Company issued a two-page press release refuting the conclusions of the Blue Orca Report. The Company claimed that the data reported to the AOGC "forms only a small portion of the total lithium chloride recovered in the process[,]" and that it

⁴ Bold/underline emphasis in original; bold/italic emphasis added.

remained "confident in its lithium extraction technology and Demonstration Plant and will maintain its focus on executing its strategic plans and progressing towards definitive feasibility and commercialization at the Lanxess facility." The Company continued, "Blue Orca Capital's interpretation of lithium recovery rates is incorrect and underestimates lithium extraction efficiencies. Similarly, the report's claims that recovery is reducing over time also misinterprets the AOGC data."

But despite Defendants' denials of the Blue Orca Report, and contrary to their 64. numerous previous claims that the Demonstration Plant was "successfully" operating and had achieved "proof of concept," in October 2021, Standard Lithium admitted to the Arkansas Oil & Gas Commission (the "Commission")—but not to its investors—that it needed to extend the authorized development and testing period, set to expire on November 16, 2021, by a period of twelve (12) months. In other words, Standard Lithium had <u>not</u> yet achieved proof of concept and, as a result, needed additional time to test its operations.⁵ The Commission issued a November 8, 2021 Order granting the requested extension, stating the following, in relevant part:

STATEMENT OF THE CASE

LANXESS Corporation and Arkansas Lithium Corporation (the 'Applicants') are seeking an Order extending the time period for deployment of the Pilot Plant to test commercial viability of extracting lithium from tail brine produced from the Smackover Limestone formation underlying LANXESS' brine field in Union County, Arkansas. Applicants are further seeking an Order that extends the time period referenced in Order No. 057-2018-10 for an additional twelve months until the December 6, 2022 hearing.

FINDINGS OF FACT

Based upon the Application filed, the exhibits as introduced and made a part of the record inclusive of those offered on behalf of the Commission, and other evidence presented by the Applicant in said proceeding, the Commission finds:

⁵ Again, this Commission filing was under the names "LANXESS Corporation and Arkansas Lithium Corporation", the latter entity is Standard Lithium's subsidiary.

- 1. That Order No. 057-2018-10 previously authorized the Applicants or their successors in interest to deploy a Pilot Plant to test commercial viability of extracting lithium from tail brine produced from the Smackover Limestone formation underlying LANXESS' brine field in Union County, Arkansas.
- 2. Order No. 057-2018-10 provided that Applicants' authority to deploy and operate the Pilot Plant would expire eighteen months following the date of first operation. The first operation date was May 16, 2020, and unless extended, the authorization in Order No. 057-2018-10 was set to expire on November 16, 2021.
- 3. Applicants request an Order extending the deployment and operation time period authorized by Order No. 057-2018-10 for an additional 12 months. Applicants request that the extension for operations and deployment now end on December 6, 2022.
- 4. Applicants state that unforeseen circumstances involving the Covid-19 pandemic, equipment modifications, delayed equipment shipment and installation, and severe winter conditions and corresponding brine field operations shutdowns in February 2021 delayed operations and compliance with Order No. 057-2018-10.6
- 65. Defendants did not disclose the delays, the purported causes thereof, the need to conduct additional testing on the commercial viability of the Company's purported operations, or the requested extension of the authorized testing period to Standard Lithium's public investors.
- Also in October 2021, Defendants submitted a "Brine and Lithium Production 66. Report" to the AOGC (see Exhibit A attached hereto), which provided the number of gallons of brine processed and the lithium carbonate produced therefrom for each quarter following the commissioning of the Demonstration Plant as follows:

	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
Raw Brine	362,952	1,618,731	1,566,221	733,854	1,702,835	2,176,775
Processed						
(gallons)						
Lithium	0	0	44	0	22	0
Carbonate						
Produced						
(lbs)						

⁶ Bold/underline emphasis in original; bold/italic emphasis added.

- 67. The Brine and Lithium Production Report showed that despite processing over 8 million gallons of raw brine at the Demonstration Plant over 18 months, a mere 66 pounds total of lithium carbonate had been produced.
- 68. Defendants did not disclose this extraction and production data to Standard Lithium's public investors.
 - F. Defendants Continue To Tout Standard Lithium's LiSTR DLE Technology And Koch Strategic Platforms Invests USD \$100 Million In Standard Lithium
- 69. In a November 24, 2021, Form 6-K and press release, the Company announced that Koch Strategic Platforms ("Koch"), a subsidiary of Koch Investments Group, would make a USD \$100 million investment in the Company through a direct private placement. The Company claimed that Koch's "Direct Investment follows extensive due diligence into Standard Lithium's LiSTR DLE technology, Demonstration Plant and project development objectives[.]" The Company further stated that the net proceeds of the Koch direct investment would be used to:

Continue to rapidly advance the first commercial project proposed for the Lanxess facility; Accelerate and expand the Company's development of the South West Arkansas Lithium Project; [and] Continue to develop and commercialise modern lithium extraction and processing technologies[.]

- 70. The November 24, 2021 press release also quoted Defendant Mintak as stating:
- We're entering an important phase for Standard Lithium [Koch's] backing is an important endorsement of the Company's core technology, development plans and of our intent to make the Gulf Region a leading supplier of lithium resources.
- 71. In a December 1, 2021, Form 6-K and press release, the Company announced that it had completed the USD \$100 million direct investment from Koch, and repeated the same objectives of the investment as in the November 24, 2021 press release.
- 72. In a December 15, 2021, press release, the Company announced that it had signed a letter of intent with Koch for support with pre-front end engineering design at the Company's proposed first commercial plant in Arkansas. The press release quoted Defendant Robinson as

saying, "The Company is undergoing a period of transformational growth, and we must add to our team in order to move fast and efficiently towards the first commercial plant."

73. On January 20, 2022, the Company provided an update in a press release and Form 6-K filed with the SEC about its progress towards commercialization at the Demonstration Plant, stating that it "produces first-of-its-kind start-to-finish DLE to battery quality lithium carbonate in a single integrated progress" and further that:

The 'SiFT' lithium carbonate plant ... has been successfully commissioned and used to produce battery quality lithium carbonate at the plant This is the first of its kind demonstration of a continuous Direct Lithium Extraction (DLE) plant being operated at scale Completion of this phase of work is another important milestone for the Company[.]

- 74. On January 25, 2022, the Company announced in a press release that it had signed a letter of intent with Koch Minerals & Trading to procure lithium off-take at the site of the Demonstration Plant. The Company noted that the letter of intent "will not impact the Company's existing or contemplated arrangements with LANXESS[.]"
 - G. Hindenburg Research Publishes A Report, Revealing Additional Risks About Standard Lithium's Business and Prospects
- 75. On February 3, 2022, Hindenburg Research published a report (the "Hindenburg Report"), revealing further undisclosed adverse information about Standard Lithium's operations.
- 76. The Hindenburg Report revealed that there was nothing proprietary or novel about Standard Lithium's LiSTR DLE technology:

Standard claims its proprietary 'LiSTR' technology differentiates it from other hopefuls. LiSTR is based on three patent applications it purchased in 2018 from an apparent one-man engineering shop. Two of the applications have already been rejected as 'unpatentable' by the USPTO.

Standard Lithium's 'Key' Intellectual Property Consists of 3 Patent Applications Developed By An Apparent One-Man Engineering Firm Standard Lithium describes its pilot facility as "utilizing proprietary advanced processing technologies" (https://www.standardlithium.com/). Its supposedly game-changing extraction process is described as "cutting-edge LiSTR direct lithium extraction technology".

We reviewed Standard's intellectual property portfolio and found it solely consisted of three patent applications that the company purchased in 2018. These form the basis of Standard's ion exchange DLE process.

Given the grand claims of having discovered breakthrough technology, one might expect the company's IP to be developed by a multinational technology firm or a major university. Instead we found that Standard's 3 applications were developed by Craig Brown, the owner of a solo engineering firm called Chemionex.

Chemionex lists just one employee on Linkedln [] which is Brown himself. Its website (https://chemionex.com/about-the-company/) makes no mention of any other employees.

Chemionex operates out of a small building between a gas station and a U-Haul drop off in a residential area north of Toronto, according to Google.

We visited the site last month and found it to be a modest lab in the basement floor of the building.

The United States Patent and Trademark Office (USPTO) Has Reviewed 2 of Standard's 3 Patent Applications And Rejected Both Thus Far

None of Standard Lithium's 3 patent applications developed by Brown have actually been granted by the USPTO.

Of the 3, one hasn't been reviewed yet. The other two have been deemed 'unpatentable' by the USPTO examiner.

1. Patent application 16/224,463 (https://patents.justia.com/patent/20200298207) received a final rejection (https://portal.uspto.gov/pair/view/BrowsePdfServlet? objectld=KJ9ZPZNHLDFLYX4&lang=DINO) on August 23, 2021. *The USPTO examiner rejected all 30 claims, citing several other patents that already described similar processes.* [Pg. 3]_ (https://portal.uspto.gov/pair/view/BrowsePdfServlet?objectld=KJ9ZPZN HLDFLYX4&lang=DINO)

Status	
1)	Responsive to communication(s) filed on 29 June 2021.
	A declaration(s)/affidavit(s) under 37 CFR 1.130(b) was/were filed on
2a)	This action is FINAL. 2b) □ This action is non-final.
3)[An election was made by the applicant in response to a restriction requirement set forth during the interview on; the restriction requirement and election have been incorporated into this action.
4)[Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.
Dispos	sition of Claims*
5)	✓ Claim(s) 1-30 is/are pending in the application.
	5a) Of the above claim(s) is/are withdrawn from consideration.
6)	☐ Claim(s) is/are allowed.
7)	✓ Claim(s) 1-30 is/are rejected.
	☐ Claim(s) is/are objected to.
8)	

2. The second patent application (16/410,523 (https://patents.justia.com/patent/20200298207)) received a final rejection (https://portal.uspto.gov/) on December 23rd, 2021, with the patent examiner again rejecting every single claim, citing previous inventions that already described similar processes.

Status	
1) Responsive to communication(s) filed on 26 November 2021.	
A declaration(s)/affidavit(s) under 37 CFR 1.130(b) was/were filed on	
2a) This action is FINAL . 2b) ☐ This action is non-final.	
3) An election was made by the applicant in response to a restriction requirement set forth during the intervolution on; the restriction requirement and election have been incorporated into this action.	iew
4) Since this application is in condition for allowance except for formal matters, prosecution as to the merits closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.	is
Disposition of Claims*	
5) ✓ Claim(s) 1,3-15 and 17-29 is/are pending in the application.	
5a) Of the above claim(s) is/are withdrawn from consideration.	
6) Claim(s) is/are allowed.	
7) Claim(s) 1,3-15 and 17-29 is/are rejected.	
8) Claim(s) is/are objected to.	
9) Claim(s) are subject to restriction and/or election requirement	

Industry Experts Weigh In On Standard's Process: "No Unique Proprietary Steps" And It Will Be "Stunningly Expensive"

both of these rejections, the examiner cited In patent (https://patentscope.wipo.int/search/en/detail.jsf?docId=W02017020090) developed Chris Reed (https://www.neometals.com.au/who-weare/leadership/), the CEO of Neometals, an Australian mineral extraction company. In reading Reed's patent, it is clear to us why the USPTO rejected two of Standard Lithium's applications, as they describe what appear to be nearly identical processes.

Both Standard (https://uspto.report/patent/app/20190276327) and Reed (https://patentscope.wipo.int/search/en/detail.jsf?docId=W02017020090&tab=PC TCLAIMS) describe using a titanium oxide adsorbent to extract lithium from brine. They also both describe a process to wash the adsorbent with hydrochloric acid to regenerate it for further use.

We asked Reed about the similarities. He commented that if Standard Lithium proceeds with its patent application, he can 'surely challenge' given that there was 'nothing novel in the patent of SLI'.

Other veteran industry sources concur with the USPTO view that there is nothing new in Standard Lithium's technology and that the process is already well understood by the mining industry.

One lithium veteran with about 35 years in the industry, now working in a U.S. DLE start-up, and who says they are familiar with the Standard Lithium process told us:

"Therés no black box going on with the Standard Lithium process. Therés no unique proprietary steps as far as I know... (Standard Lithium has) a cumbersome process compared to ours. We don't use chemicals to do the stripping. We don't use hydrochloric acid to strip the lithium and they do."

"They have to go through copious amounts of washing and things like that. They can be successful with their technology but Im not sure they can stand up to what the future will bring as far as competition. Their process is more like a standard mining process. They're using semi-batch stir tanks and then filtration and washing and that kind of cumbersome solids-liquids separation and handling. It's probably economic but I wouldn't call it ideal...It's more intensive with respect to labor, equipment and upkeep."

With the USPTO stating that Standard's patent applications describe alreadyexisting inventions, industry veterans saying there is nothing new in the 'cuttingedge LiSTR' processes and with a cemetery full of other failed DLE startups, we find Standard Lithium's claims of being a 'first mover' in the technology to be highly questionable. 77. The Hindenburg Report re-confirmed the Blue Orca Report's conclusion, contrary to Defendants' November 18, 2021, rebuttal, that Standard Lithium indeed had not achieved proof of concept and further revealed that when a source at the AOGC was asked, "if the figures shown in the quarterly reports as gallons of lithium chloride solution or pounds of lithium carbonate was the total processed and retained on the surface by Standard Lithium, the source said: 'I would say yes that's a good way of clarifying it.'" The Hindenburg Report further stated:

Even now, the pilot plant appears to be operating at a fraction of its boilerplate capacity, according to data we reviewed through FOIA. Standard's technology solution seems to be struggling out of the gate.

Standard's flagship project has been delayed by nearly 18 months with key partner Lanxess recently admitting that Standard's extraction technology has still not demonstrated 'proof of concept'. Lanxess says it has "no timeline" for development and is no longer mentioning Standard Lithium on its earnings calls.

As of early 2022, a spokeperson for Lanxess in German told us that while they were optimistic, Standard had still not demonstrated proof of concept [quoting the Lanxess spokesperson as saying]: "There's still some steps to go and things to test out but we're working on that. We don't have a timeline. There was a letter of intent so let's see how we work together once proof-of-concept is there."

While Lanxess has not offered precise details about why it is not yet satisfied with proof-of-concept, mandatory records filed by Standard Lithium to the Arkansas Oil & Gas Commission show its pilot plant is operating at just a fraction of its boilerplate capacity and far from the 24/7 capacity [] boasted by corporate press releases.

According to figures to date, Standard has operated at just one-third brine throughput capacity and has produced only kilos (not tons) of lithium carbonate—a major divergence from the company's statements about its pilot plant's boilerplate capacity[.]

- 78. With respect to the \$100 million investment by Koch in the Company, the Hindenburg Report stated, "We think Koch missed red flags and failed in its due diligence in its haste to deploy capital."
- 79. Following publication of the Hindenburg Report, the Company's share price plummeted USD \$1.98 per share, or 27%, to close at USD \$5.29 per share on February 3, 2022.

V. DEFENDANTS' MATERIALLY FALSE AND MISLEADING STATEMENTS

- A. May-November 2020: Defendants Misleadingly Tout "Successful" Operations And Falsely Claim To Have Reached A "Significant Milestone" Toward Proof Of Concept
- 80. On May 19, 2020, Standard Lithium issued a press release entitled "STANDARD LITHIUM COMPLETES COMMISSIONING AND COMMENCES FULL-TIME OPERATION OF ITS LITHIUM EXTRACTION DEMONSTRATION PLANT." The May 19, 2020 press release stated, in relevant part:

[Standard Lithium] is pleased to announce the successful start-up of the Company's industrial-scale Direct Lithium Extraction Demonstration Plant at Lanxess' South Plant facility in southern Arkansas (the "Site"). The first-of-its-kind plant, using Standard Lithium's proprietary LiSTR Direct Lithium Extraction technology, has been successfully commissioned during the first part of 2020 and is now operating on a 24/7 basis, extracting lithium directly from Lanxess' tail brine []. Standard Lithium's project team in Arkansas is now commencing a series of systematic optimization exercises in order to fine-tune the plant and investigate how performance can be improved further.

KEY FEATURES OF THIS DISRUPTIVE TECHNOLOGY

- Produces lithium chloride (LiCl) directly from un-concentrated raw brine;
- Reduces recovery time from months to less than a day;
- Eliminates the massive environmental footprint of evaporation ponds;
- Returns virtually all water to the source aquifer;
- Not affected by weather conditions;
- Vastly increases recovery efficiencies to as much as >90%; and,
- Unlocks large-scale unconventional brine resources.

The LiSTR demonstration plant is designed to continuously process an input tail brine flow of 50 gallons per minute (gpm; or 11.4 m3/hr) from the Lanxess South Plant, which is equivalent to an annual production of between 100-150 tonnes per annum of Lithium Carbonate.

- 81. The foregoing statements were materially false and/or misleading because (1) the claim that Standard Lithium's LiSTR technology "vastly increases recovery efficiencies to as much as >90%" was materially misleading because the Company could not increase lithium recovery efficiencies to even close to 90%; (2) Standard Lithium's LiSTR technology was not scalable or economically viable and could not achieve an annual production of 100-150 tonnes per annum of lithium carbonate; (3) Standard Lithium's supposed "proprietary" LiSTR technology was based on three patent applications it had purchased in December 2018 from a one-man engineering shop, none of which had been granted and which were duplicative of already-patented processes, and; (4) the Demonstration Plant was not successfully operating per design, i.e., it could not produce 100-150 tonnes per annum of lithium carbonate; in fact, in Q2 2020, the Company processed 362,952 gallons of raw brine at the Demonstration Plant but produced zero (0) pounds of lithium carbonate.
 - 82. In addition, the press release quoted Defendant Mintak, stating, in part:

The successful commissioning and operation of the LiSTR extraction technology represents a significant milestone towards proof of concept and a final investment decision for our Arkansas project. Standard Lithium prides itself on a practical approach, and this has paid dividends by developing a truly innovative process that actually works in the real world not just the laboratory. This project milestone represents a major advance towards re-establishing a U.S. domestic supply of battery quality lithium chemicals.

83. The foregoing statements were materially false and/or misleading because (1) Standard Lithium was far from achieving proof of concept because its LiSTR technology could not increase lithium recovery efficiencies to as much as (or even close to 90%), or achieve an annual production of 100-150 tonnes per annum of Lithium Carbonate; (2) Standard Lithium's LiSTR technology was not "a truly innovative process that actually works in the real world" because it was not scalable or economically viable; (3) Standard Lithium's LiSTR technology was based on three patent applications that were not granted and were merely duplicative of already-patented processes; (4) the Demonstration Plant was not "successful[ly] commission[ed] or operat[ing]" per design, *i.e.*, it could *not* produce 100-150 tonnes per annum of lithium carbonate—in fact, in Q2 2020, the Company processed 362,952 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate, and; (5) Defendants' claims that Standard Lithium had reached a "significant milestone toward proof of concept" and "a major advance towards re-establishing a U.S. domestic supply chain of battery quality lithium chemicals" were materially misleading because it had not produced *any* lithium carbonate, let alone anything close to the 90% lithium recovery rate required to show proof of concept.

- 84. On May 29, 2020, Standard Lithium published Management's Discussion and Analysis for the nine months ended March 31, 2020 (the "Q3 2020 MD&A"). The Q3 2020 MD&A was signed by Mintak and Norman and was incorporated by reference to the Form 40-F that the Company filed with the SEC on June 30, 2021. The Q3 2020 MD&A touted the preliminary economic assessment for the LANXESS Project that the Company had received on August 1, 2019 (the "LANXESS PEA"). The LANXESS PEA conclusions were based on the conclusion that "[t]he final product lithium recovery is about 90%[,]" and the Company summarized the conclusions as follows (hereinafter referred to as the "LANXESS PEA Conclusions"):
 - The total Indicated LANXESS Li-Brine Resource is estimated at 3,140,000 tonnes of LCE. The volume of resources will allow the lithium bearing brine extraction operations to continue well beyond the currently assumed 25 years
 - The results of the geological evaluation and resource estimates for the Preliminary Economic Assessment of LANXESS Smackover Project

- justifies development of the project to further evaluate the feasibility of production of lithium carbonate.
- The experience gained from the long-term operations of the brine extraction and processing facilities on the LANXESS controlled properties decreases the risk related to sustainability of the brine extraction from the Smackover Formation.
- The well-developed infrastructure and availability of a qualified work force will decrease the risks related to construction, and commissioning and operating of the lithium extraction and lithium carbonate processing plants
- The results of the bench scale testing and mini-plant process testing program increase the level of confidence in the key parameters for the operating cost estimate.
- Improvements made to process efficiency, particularly the reduction of reagents and chemicals consumption, will improve the economics of the Project.
- The discounted cash flow economic analysis, at a discount rate of 8%, indicates that the Project is economically viable under the base case conditions. The key economic indicators, NPV = US\$989,432,000 (post-tax) and IRR= 36% (post-tax), are very positive.
- 85. The foregoing statements in the Lanxess PEA were materially false and/or misleading because they misrepresented or failed to disclose that: (1) Standard Lithium had no reasonable basis to claim that its LiSTR technology could achieve a final product lithium recovery rate of "about 90%" because at this time, while the Company had processed 362,952 gallons of raw brine at the Demonstration Plant and yielded zero (0) pounds of battery grade lithium carbonate; (2) Standard Lithium's LANXESS Project was not scalable or "economically viable"; (3) the LANXESS Project was not worth USD \$989 million because that valuation was based on the assumption that Standard Lithium could achieve a lithium recovery rate of about 90%, which Defendants knew it did not and could not achieve and/or maintain; (4) the results of the geological evaluation and resource estimates for the Preliminary Economic Assessment of the LANXESS Project did not justify development of the project to further evaluate the feasibility of production of lithium carbonate because they were based on the assumption that Standard Lithium could achieve a lithium recovery rate of about 90%, which it realistically could not, and; (5) Standard

Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop—none of which had been granted and which duplicated already-patented processes.

- The Q3 2020 MD&A further stated that the Company had "developed a suite of 86. Intellectual Property ('IP') related to the novel technologies that can be deployed to either selectively extract lithium from brine, or convert and purify lithium chemicals to higher purity materials."
- 87. The foregoing statement was materially false and/or misleading because it (1) omitted that Standard Lithium's relevant IP consisted merely of three patent applications—none of which had been granted—that the Company purchased in December 2018 from a one-man engineering shop, which merely described already-patented processes; (2) Standard Lithium's technology was not scalable, economically feasible, or commercially viable, and; (3) in Q2 2020, the Company processed 362,952 gallons of raw brine at the Demonstration Plant but had produced zero (0) pounds of lithium carbonate.
- 88. In a July 15, 2020, press release, the Company announced updates on the Demonstration Plant and the SiFT Plant, representing to investors that both projects had proven successful, stating:

Firstly, the Company's pre-commercial Direct Lithium Extraction (DLE) Demonstration Plant at LANXESS' South Plant facility in southern Arkansas has been operating successfully since late May, and has been producing concentrated lithium chloride product, as per its design. This first-of-its-kind precommercial plant, which uses Standard Lithium's proprietary LiSTR DLE technology, has been operating on a 24/7 basis using tail-brine feed from the existing LANXESS facility

Secondly, the Company's industrial-scale lithium carbonate SiFT crystallization pilot plant is beginning initial lithium carbonate crystallization work. The commissioning phase of the plant has been successfully completed Once the lithium chloride product from the operational DLE plant in Arkansas is

optimised, it will be shipped in bulk to Richmond, BC for final conversion in the SiFT plant.

- 89. The foregoing statements were materially false and/or misleading because (1) the Demonstration Plant was not successfully operating "per its design"—in fact, in Q2 2020, the Company processed 362,952 gallons of raw brine at the Demonstration Plant but had produced *zero* (0) pounds of lithium carbonate, and in Q3 2020, the Company processed 1,618,731 gallons of raw brine at the Demonstration Plant which again yielded *zero* (0) pounds of lithium carbonate; (2) Standard Lithium's LiSTR technology was not scalable or economically viable; (3) Standard Lithium's LiSTR technology was not "proprietary" and was based on three patent applications that were duplicative of already-patented processes, and; (4) Standard Lithium had no reasonable basis to claim that its processes could increase lithium recovery efficiencies to as much as or close to 90%, or achieve an annual production of 100-150 tonnes per annum of lithium carbonate because in Q2 2020 and Q3 2020, the Demonstration Plant produced *zero* (0) pounds of lithium carbonate.
- 90. The July 15, 2020 press release further described the Company's lithium extraction technology as "scalable ... and greatly increase the effective recovery of lithium."
- 91. The foregoing statements were materially false and/or misleading because Standard Lithium's LiSTR technology was not scalable or economically viable whereas in Q2 2020, the Company processed 362,952 gallons of raw brine at the Demonstration Plant but produced *zero* (0) pounds of lithium carbonate, and in Q3 2020, the Company processed 1,618,731 gallons of raw brine at the Demonstration Plant (4.5x as much raw brine as the prior quarter), which still yielded *zero* (0) pounds of lithium carbonate.
 - 92. The July 15, 2020 press release quoted Defendant Robinson as stating:

Standard Lithium continues to execute on our key project milestones; we have successfully started and operated the industrial scale DLE plant in Arkansas, and now we are starting up our next-generation lithium carbonate crystallisation plant

.... We continue to make significant strides towards commercial execution, and our large-scale pilot plants provide the necessary proof-of-concept.

- 93. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology was not scalable or economically viable; (2) Standard Lithium had not "successfully . . . operated the industrial scale DLE plant in Arkansas"—in fact, in Q2 2020, the Company processed 362,952 gallons of raw brine at the Demonstration Plant but produced zero (0) pounds of lithium carbonate, and in O3 2020, the Company processed 1,618,731 gallons of raw brine at the Demonstration Plant, which again yielded zero (0) pounds of lithium carbonate; (3) Standard Lithium had not made "significant strides towards commercial execution" and did not "continue[] to execute on our key project milestones" because it had produced no battery grade lithium carbonate at that point, and; (4) Standard Lithium's "large-scale pilot plants" did *not* "provide the necessary proof of concept" because at that point, the Company's operations at the site of the Demonstration Plant had produced no lithium carbonate and thus was nowhere near the 100-150 tonnes per year or 90% recovery rate required to show proof of concept.
- 94. On September 9, 2020, the Company issued a press release entitled, "Standard Lithium Ships First Large Volume of Lithium Chloride Product From Arkansas Facility" which discussed the success of its "Dual Track Program for Lithium Carbonate Conversion" at the Demonstration Plant and SiFT Plant, touting the Company's "proprietary LiSTR technology" as "scalable ... and greatly increases the effective recovery of lithium." The September 9, 2020 press release noted that "20,000 liters of lithium chloride produce shipped" from its Demonstration Plant to be converted to lithium carbonate at the SiFT Plant and further touted the success of the its LiSTR technology:

Direct Lithium Extraction

The Company's first-of-its-kind in the world DLE Demonstration Plant is installed at LANXESS' South Plant facility near El Dorado, Arkansas. The

Demonstration Plant utilizes the Company's proprietary "LiSTR" technology and is designed to continuously process an input tail brine flow of 50 gallons per minute (gpm; or 11.4 m3/hr) from the Lanxess South Plant, which is equivalent to an annual production of between 100-150 tonnes per annum of lithium carbonate.

- 95. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology was not scalable or economically viable; (2) Standard Lithium's "proprietary 'LiSTR' technology" was based on three patent applications that it purchased in December 2018 from a one-man engineering shop, none of which had been granted and which were duplicative of already-patented processes, and; (3) the claim that the Demonstration Plant "utilizes the Company's proprietary 'LiSTR' technology . . . to continually process an input tail brine flow . . . equivalent to an annual production of between 100-150 tonnes per annum of lithium carbonate" was misleading because, while the Company had processed 362,952 gallons of raw brine at the Demonstration Plant in Q2 2020 and 1,618,731 gallons of raw brine in Q3 2020, it had at that point yielded **no** lithium carbonate.
 - 96. The September 9, 2020 press release also quoted Defendant Robinson as saying:

Standard Lithium keeps on delivering and de-risking our pre-commercial plants. We've been successfully operating our first-of-its-kind industrial scale DLE plant in Arkansas, and we've been continuously making lithium chloride product for months. We're now at the point where we've got out SiFT pilot plant running, and we can use it to convert the lithium chloride product from Arkansas. This is a very exciting time for us because we're approaching the point where we can demonstrate the continuous extraction of lithium from Smackover brine and conversion into battery-quality material.

97. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology was not scalable or economically viable; (2) the claim that "[w]e've been successfully operating our first-of-its-kind industrial scale DLE plant in Arkansas" was materially misleading because while the Company had processed 362,952 gallons of raw brine at the Demonstration Plant in Q2 2020 and 1,618,731 gallons of raw brine in Q3 2020, it had yielded no lithium carbonate, and; (3) Standard Lithium was far from "approaching the point where [it] [could] demonstrate the continuous extraction of lithium from Smackover brine and conversion into battery-quality material[,]" because it had produced zero (0) pounds of lithium carbonate in Q2 2020 and Q3 2020 despite having processed nearly 2 million gallons of raw brine.

98. On September 18, 2020, Standard Lithium issued a press release again touting the Company's "proprietary LiSTR technology" as "scalable ... and greatly increases the effective *recovery of lithium*[,]" and:

When compared to the conventional methods for recovering lithium from brine, the LiSTR process provides many benefits ... [including] [slignificant efficiency gains - as 90% recovery versus 40-60%

- 99. The foregoing statements were materially false and/or misleading because (1) the claim that Standard Lithium's LiSTR technology provided "significant efficiency gains – as 90% recovery versus 40-60%" as compared to "conventional methods for recovering lithium" was misleading where, by Q3 2020, the Demonstration Plant had processed nearly 2 million gallons of raw brine but Defendants sent only 4,560 gallons of lithium chloride off-site for processing and yielded zero (0) pounds of lithium carbonate; (2) Standard Lithium's LiSTR technology was not scalable or economically viable, and; (3) Standard Lithium's LiSTR technology was not "proprietary" and was instead based on three patent applications it had purchased in December 2018 from a one-man engineering shop, none of which had been granted and that were duplicative of already-patented processes.
- 100. On October 27, 2020, Standard Lithium published Management's Discussion and Analysis for the year ended June 30, 2020 (the "2020 MD&A"). The 2020 MD&A was signed by Mintak and Norman and was incorporated by reference to the Company's Form 40-F filed with

the SEC on June 30, 2021. The 2020 MD&A again touted the LANXESS PEA Conclusions, as quoted at ¶84, *supra*.

101. The foregoing statements in the Lanxess PEA were materially false and/or misleading because they misrepresented or failed to disclose that: (1) Standard Lithium had no reasonable basis to claim that its LiSTR technology could achieve a final product lithium recovery rate of "about 90%" because the Company was achieving far below its claimed 90% recovery rate, with a lithium recovery rate of about 7% in Q4 2020; (2) Standard Lithium's LANXESS Project was not scalable or "economically viable"; (3) the LANXESS Project was not worth USD \$989 million because that valuation was based on the assumption that Standard Lithium could achieve a lithium recovery rate of about 90%, which Defendants knew it did not and realistically could not; (4) the results of the geological evaluation and resource estimates for the Preliminary Economic Assessment of LANXESS Project did not justify development of the project to further evaluate the feasibility of production of lithium carbonate because they were based on the assumption that Standard Lithium could achieve a lithium recovery rate of about 90%, which it did not and realistically could not; (5) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop—none of which had been granted and which duplicated already-patented processes, and; (6) from Q2 2020 through Q4 2020, while the Company processed over 3.5 million gallons of raw brine at the Demonstration Plant, it had produced a total of just 44 pounds of lithium carbonate.

102. The 2020 MD&A described the LANXESS Project in part as follows:

In mid-May 2020 the Company announced the completion of the commission phase of the Demonstration plant. The Demonstration Plant is designed to continuously process an input tail brine flow of 50 gallons per minute (gpm; or 11.4 m3/hr) from the Lanxess South Plant, which is equivalent to an annual production of between 100-150 tonnes per annum of Lithium Carbonate.

- The foregoing statements were materially false and/or misleading because (1) 103. Standard Lithium had no reasonable basis to claim that the Demonstration Plant was "designed to" achieve an annual production of 100-150 tonnes per annum of lithium carbonate—in fact, in Q2 2020, the Company processed 362,952 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate; in Q3 2020, the Company processed 1,618,731 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate, and; in Q4 2020, the Company processed 1,566,221 gallons of raw brine at the Demonstration Plant and produced 44 pounds of lithium carbonate; (2) Standard Lithium's LiSTR technology was not scalable or economically viable, and; (3) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop—none of which had been granted and which duplicated already-patented processes.
- 104. On November 27, 2020, the Company published its Annual Information Form for the year ended June 30, 2020, which was amended on December 2, 2020 ("2020 AIF"). The 2020 AIF was signed by Mintak and Norman and was incorporated by reference into to the Company's Form 40-F filed with the SEC on June 30, 2021. The 2020 AIF summarized the Company's recent progress at the LANXESS Project as follows:

On May 9, 2020, the Company commenced full-time operation of the Demonstration Plant. The plant is designed to process up to 50 USGPM of brine, extract the lithium, with the aim of producing a high quality, concentrated lithium chloride intermediate product. This product can then be converted into battery quality lithium carbonate, either via conventional OEM processes, or via the proprietary SiFT technology the Company is developing. As of July 15, 2020, the Company's SiFT pilot plant is now operational and represents the next generation of lithium carbonate crystallization, promising higher purities and more consistent specifications; all requirements of the next generations of lithium ion batteries.

On May 19, 2020 the Company announced the successful start-up of the Demonstration Plant which is now operating on a 24/7 basis, extracting lithium directly from LANXESS' tail brine.

On September 9, 2020 the Company announced it had shipped its first large volume of lithium chloride product from the Demonstration Plant for final conversion to lithium carbonate.

- Standard Lithium's Demonstration Plant was not operating "[as] designed," such as to process 50 USGPM of brine to achieve an annual production of 100-150 tonnes per annum of lithium carbonate—in fact, in Q2 2020, the Company processed 362,952 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate; in Q3 2020, the Company processed 1,618,731 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate, and; in Q4 2020, the Company processed 1,566,221 gallons of raw brine at the Demonstration Plant and produced 44 pounds of lithium carbonate; and, as such; (2) the claim that the Demonstration Plant startup had been "successful" and "now operating on a 24/7 basis, extracting lithium directly from LANXESS' tail brine" was materially misleading where Defendants concealed that the lithium extraction from over 3.5 million gallons of tail brine over nine months had yielded a mere 44 lbs of lithium carbonate.
- 106. The 2020 AIF further stated that "*The Company holds substantial IP* and has filed full, non-provisional patent applications in several jurisdictions for its LiSTR (selective lithium extraction) technology[.]"
- 107. The foregoing statements were materially false and/or misleading because the statements omitted that (1) Standard Lithium's relevant IP consisted merely of three patent applications—none of which had been granted—that the Company purchased in December 2018 from a one-man engineering shop, which described already-patented processes; (2) Standard Lithium's technology did not work as represented: it had not produced any lithium carbonate at its Demonstration Plant in Q2 2020 or Q3 2020, and in Q4 2020, the Company processed 1,566,221

gallons of raw brine at the Demonstration Plant and produced just 44 pounds of lithium carbonate; and; (3) as a result, Standard Lithium's technology was not scalable, economically feasible, or commercially viable.

- 108. The 2020 AIF further touted the LANXESS PEA Conclusions, as quoted in ¶84, *supra*, which were materially false and misleading for the same reasons as stated in ¶101, *supra*.
- 109. On November 27, 2020, Standard Lithium published Management's Discussion and Analysis for the three months ended September 30, 2020 (the "Ql 2021 MD&A"). The Q1 2021 MD&A was signed by Norman and Mintak and was incorporated by reference into the Company's Form 40-F filed with the SEC on June 30, 2021. The Company reiterated the status of the LANXESS Project in part, as follows:

In mid-May 2020 the Company announced the completion of the commission phase of the Demonstration Plant. The Demonstration Plant is designed to continuously process an input tail brine flow of 50 gallons per minute (gpm; or 11.4 m3/hr) from the Lanxess South Plant, which is equivalent to an annual production of between 100-150 tonnes per annum of Lithium Carbonate

On September 9, 2020, the Company shipped a large volume of lithium chloride solution product from the Arkansas Demonstration Plant for final conversion to lithium carbonate. The Company shipped an initial volume of 20,000 liters of lithium chloride for conversion to battery quality lithium carbonate The Company's industrial-scale lithium carbonate SiFT crystallization pilot plant, has been operating successfully since mid-July Transport of bulk volumes of polished lithium chloride product will continue to be shipped from Arkansas to BC[.]

110. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's Demonstration Plant was not operating "per design" such to process 50 USGPM of brine, or achieve an annual production of 100-150 tonnes per annum of lithium carbonate—in fact, in Q2 2020 and Q3 2020, the Company produced 0 pounds of lithium carbonate, and in Q4 2020, the Company processed 1,566,221 gallons of raw brine at the Demonstration Plant and produced a mere 44 pounds of lithium carbonate; (2) Standard Lithium's Case 1:22-cv-00507-EK-VMS

LiSTR technology was not scalable or economically viable; (3) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop—none of which had been granted and which duplicated alreadypatented processes, and; (4) Standard Lithium was achieving far below its claimed lithium recovery rate of 90% at the Demonstration Plant, and achieved a recovery rate of about 7% in Q4 2020.

- The Ql 2021 MD&A again touted the LANXESS PEA Conclusions, as quoted in 111. ¶84, *supra*.
- 112. The foregoing statements in the Lanxess PEA were materially false and/or misleading because they misrepresented or failed to disclose that: (1) Standard Lithium had no reasonable basis to claim that its LiSTR technology could achieve a final product lithium recovery rate of "about 90%" because the Company was achieving far below its claimed 90% recovery rate, with a lithium recovery rate of about 7% in Q4 2020; (2) Standard Lithium's LANXESS Project was not scalable or "economically viable"; (3) the LANXESS Project was not worth USD \$989 million because that valuation was based on the assumption that Standard Lithium could achieve a lithium recovery rate of about 90%, which it realistically could not; (4) the results of the geological evaluation and resource estimates for the Preliminary Economic Assessment of LANXESS Project did not justify development of the project to further evaluate the feasibility of production of lithium carbonate because they were based on the assumption that Standard Lithium could achieve a lithium recovery rate of about 90%, which it realistically could not; (5) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop—none of which had been granted and which duplicated already-patented processes, and; (6) in Q2 2020 and Q3 2020, the Company produced

0 pounds of lithium carbonate and in Q4 2020, the Company processed 1,566,221 gallons of raw brine at the Demonstration Plant and produced just 44 pounds of lithium carbonate.

- 113. The Q1 2021 MD&A further stated that the Company has "developed a suite of Intellectual Property ('IP') related to novel technologies that can be deployed to either selectively extract lithium from brine, or convert and purify intermediate lithium chemicals to higher purity materials."
- 114. The foregoing statements were materially false and/or misleading because the statements (1) omitted that Standard Lithium's relevant IP consisted merely of three patent applications—none of which had been granted—that the Company purchased in December 2018 from a one-man engineering shop, which described already-patented processes; (2) Standard Lithium's technology was not scalable, economically feasible, or commercially viable, and; (3) Standard Lithium's technology was not and could not work as represented (*i.e.*, achieve a lithium recovery rate of about 90% or produce 100-150 tons per year of lithium carbonate)—and in fact, in Q2 2020, the Company processed 362,952 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate; in Q3 2020, the Company processed 1,618,731 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate, and; in Q4 2020, the Company processed 1,566,221 gallons of raw brine at the Demonstration Plant and produced 44 pounds of lithium carbonate, with a lithium recovery rate of about 7% in Q4 2020.

B. Defendants Announce Standard Lithium Achieved Proof Of Concept

"Standard Lithium Successfully Completes Proof-of-Concept of Modern Lithium Extraction and Crystallisation Technology and Makes Better Than Battery Quality Lithium Carbonate," which touted the Company's "proprietary LiSTR technology" as "scalable ... and greatly increases the effective recovery of lithium[,]" and stated:

[Standard Lithium] is pleased to announce that it has successfully completed the start-to-finish proof of concept of its modern lithium processing Successful operation of the technology at pre-commercial technology. continuous scale has directly extracted lithium from brine in Arkansas and produced a purified, concentrated intermediate product (LiCi solution) which has been converted to better than battery quality lithium carbonate final product.

- 116. The foregoing statements were materially false and/or misleading because (1) Standard Lithium had not "successfully completed the start-to-finish proof of concept of its modern lithium processing technology": (i) from O2 through O4 2020, the Company processed over 3.5 million gallons of tail brine at the Demonstration Plant but yielded just 44 pounds of lithium carbonate, nowhere near the 100-150 tonnes per annum repeatedly represented by Defendants; and (ii) the Company was achieving far below a 90% lithium recovery rate, with a recovery rate of just 7% in O4 2020; (2) the undisclosed data shows that Standard Lithium had no reasonable basis to claim that its LiSTR technology could increase lithium recovery efficiencies to as much as or close to 90%, or achieve an annual production of 100-150 tonnes per annum of lithium carbonate; as a result (3) Standard Lithium's LiSTR technology was not scalable or economically viable, and; (4) Standard Lithium's supposedly "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop, none of which had been granted and that were duplicative of already-patented processes.
 - 117. The December 3, 2020 press release quoted Defendant Robinson as stating:

[T]his is an extremely important milestone for Standard Lithium. We've managed to demonstrate the first of its kind continuous extraction of lithium from Smackover brine and we've converted it into better than battery quality material. Not only that, but we've done it at a large scale, which now allows us to keep on working towards commercialisation. This proof of concept validates our approach[.]

118. The foregoing statements were materially false and/or misleading because (1) Standard Lithium had *not* achieved proof of concept—it had produced nowhere near 100-150 tonnes per annum of lithium carbonate and was achieving far below a 90% lithium recovery rate; (2) Standard Lithium's lithium recovery rate was approximately 7% in Q4 2020 and, as a result, Defendants had no reasonable basis to claim that the Company's LiSTR technology could increase lithium recovery efficiencies to as much as (or even close to) 90%, or achieve an annual production of 100-150 tonnes per annum of lithium carbonate; (3) Standard Lithium's LiSTR technology was not scalable or economically viable; (4) Standard Lithium's LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop, none of which had been granted and that were duplicative of already-patented processes, (5) because Standard Lithium was so far from achieving proof of concept, it had not achieved an "extremely important milestone" towards commercialization; and (6) the claim that "we've done it at a large scale" is egregiously false and misleading where, despite having processed over 3.5 million gallons of tail brine over nine months, the Company produced a mere 44 pounds of lithium carbonate at the time the statement was made.

- 119. On February 25, 2021, Standard Lithium published its Management's Discussion and Analysis for the six months ended December 31, 2020 (the "Q2 2021 MD&A"). The Q2 2021 MD&A was incorporated by reference to the Company's Form 40-F, filed with the SEC on June 30, 2021. In discussing the LANXESS Project, the Q2 2021 MD&A stated, in relevant part, "[t]he final product lithium recovery [of its bromine extraction operations] is about 90%[,]" and repeated the LANXESS PEA Conclusions, as quoted in ¶84, supra.
- 120. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology did not and could not achieve a final product lithium recovery rate of "about 90%; (2) Standard Lithium's LANXESS Project was not scalable or "economically viable"; (3) the LANXESS Project was not worth USD \$989 million because that

valuation was based on the assumption that Standard Lithium could achieve a lithium recovery rate of about 90% and Defendants knew that the Company did not and reasonably could not achieve that rate; (4) the results of the geological evaluation and resource estimates for the Preliminary Economic Assessment of the LANXESS Project did not justify development of the project to further evaluate the feasibility of production of lithium carbonate because they were based on the assumption that Standard Lithium could achieve a lithium recovery rate of about 90%, and Defendants knew that the Company did not and reasonably could not achieve that rate; (5) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop—none of which had been granted and which duplicated already-patented processes; (6) Standard Lithium had produced a mere 44 pounds of lithium carbonate through Q1 2021, and; (7) Standard Lithium had not been achieving a 90% lithium recovery rate and its lithium recovery rate was declining over time.

- 121. On March 1, 2021, the Company announced in a press release that it had successfully completed the conversion of its Arkansas-produced lithium chloride into 99.985% pure lithium carbonate using established OEM technology, thus demonstrating that the Company "continues to move towards commercialisation[.]" The press release further touted the Company's "proprietary LiSTR technology" being used "to selectively extract lithium from LANXESS' tailbrine" as "scalable ... and greatly increases the effective recovery of lithium."
- 122. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology was not scalable or economically viable; (2) Standard Lithium's "proprietary LiSTR technology" was based on three patent applications it purchased in December 2018 from a one-man engineering shop, none of which had been granted and that were duplicative of already-patented processes, and; (3) Standard Lithium was not "continu[ing] to

move toward commercialization" where it had not achieved proof of concept and it had produced a mere 44 pounds of lithium carbonate from over 3.5 million gallons of tail brine processed over nine months.

- On May 26, 2021, Standard Lithium published its Management's Discussion and 123. Analysis for the nine months ended March 31, 2021 (the "Q3 2021 MD&A"). The Q3 2021 MD&A was incorporated by reference to the Company's Form 40-F, which was filed with the SEC on June 30, 2021. The Q3 2021 MD&A again touted the LANXESS PEA Conclusions, as quoted in ¶84, *supra*.
- The foregoing statements were materially false and/or misleading because (1) 124. Standard Lithium's LiSTR technology did not and reasonably could not achieve a final product lithium recovery rate of "about 90%"; (2) Standard Lithium's LANXESS Project was not scalable or "economically viable"; (3) the LANXESS Project was not worth USD \$989 million because that valuation was based on the assumption that Standard Lithium could achieve a lithium recovery rate of about 90% and Defendants knew that the Company did not and could not reasonably achieve that rate; (4) the results of the geological evaluation and resource estimates for the Preliminary Economic Assessment of the LANXESS Project did not justify development of the project to further evaluate the feasibility of production of lithium carbonate because they were based on the assumption that Standard Lithium could achieve a lithium recovery rate of about 90% and Defendants knew that the Company did not and could not reasonably achieve that rate, and; (5) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop—none of which had been granted and which duplicated already-patented processes, and; (6) in Q2 2021, Standard Lithium had

processed 1,702,835 gallons of raw brine but produced a mere 22 pounds of lithium carbonate, with a lithium recovery rate of about 14%.

- C. Defendants File A Registration Form With The SEC On June 30, 2021 In Connection With Standard Lithium's Request To List On The NYSE, Making Materially False And Misleading Statements Therein
- 125. On June 30, 2021, the Company filed a Form 40-F Registration Statement with the SEC (the "June 2021 Form 40-F") in connection with its request to list on the NYSE. Numerous documents were incorporated by reference into the June 2021 Form 40-F, as detailed below.
- 126. The June 2021 Form 40-F incorporated by reference a press release the Company issued on August 6, 2019, wherein the Company announced that it had received the LANXESS PEA. That press release stated:

The Company believes new lithium production can be brought on stream rapidly by ... leveraging advances in lithium extraction technologies and processes. The Company's flagship project is located in southern Arkansas, where it is engaged in the testing and *proving of the commercial viability* of lithium extraction from over 150,000 acres of permitted brine operations utilizing the Company's proprietary selective extraction technology.

127. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology was not scalable or economically viable; (2) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it had purchased from a one-man engineering shop in December 2018, none of which had been granted and which were duplicative of already-patented processes, and; (3) Standard Lithium was not "proving" "commercial viability" of its lithium extraction technology at the Demonstration Plant, and instead, was far from doing so-indeed, and contrary to Defendants' claims since December 3, 2020, Standard Lithium had not even achieved proof of concept and was far from achieving proof of concept because in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the

Demonstration Plant and produced just 22 pounds of lithium carbonate, with a lithium recovery rate of about 14%.

128. The June 2021 Form 40-F incorporated by reference a press release the Company issued on August 22, 2019, entitled "STANDARD LITHIUM COMPLETES FABRICATION OF PHASES 1 & 2 AND BEGINS MOBILISATION OF ITS 'LISTR' DIRECT LITHIUM EXTRACTION DEMONSTRATION PLANT TO THE ARKANSAS PROJECT SITE." That press release stated:

The Demonstration Plant is designed to continuously process an input tailbrine flow of 50 gallons per minute ... from the Lanxess South Plant, which is equivalent to an annual production of between 100-150 tonnes per annum Lithium Carbonate (LCE). The Demonstration Plant is based on Standard Lithium's proprietary LiSTR technology The environmentally friendly process eliminates the use of evaporation ponds, reduces processing time from months to hours and greatly increases the effective recovery of lithium."

[Standard Lithium] believes new lithium production can be brought on stream rapidly by ... leveraging advances in lithium extraction technologies and processes. The Company's flagship project is located in southern Arkansas, where it is engaged in the testing and proving of the commercial viability of lithium extraction from over 150,000 acres of permitted brine operations utilizing the Company's proprietary selective extraction technology.

Standard Lithium's LiSTR technology was not scalable or economically viable; (2) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it had purchased from a one-man engineering shop in December 2018, none of which had been granted and which were duplicative of already-patented processes; (3) the Demonstration Plant was not operating and realistically could not operate as it was "designed" to (*i.e.*, such to produce 100-150 tons of lithium carbonate per year)—in fact, in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the Demonstration Plant and produced just 22 pounds of lithium carbonate, and; (4) Standard

Lithium was not "proving" "commercial viability" of its lithium extraction technology at the Demonstration Plant, and instead, was far from doing so—indeed, and contrary to Defendants' claims since December 3, 2020, Standard Lithium had not even achieved proof of concept and was far from achieving proof of concept because in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the Demonstration Plant and produced just 22 pounds of lithium carbonate, with a lithium recovery rate of about 14%.

- The June 2021 Form 40-F incorporated by reference a press release issued by the 130. Company on September 3, 2019, wherein the Company announced that it had begun installation of phases 1 and 2 of its Demonstration Plant and reiterated that the Company was focused on "leveraging advances in lithium extraction technologies and processes. The Company's flagship project is located in southern Arkansas, where it is engaged in the testing and proving of the commercial viability of lithium extraction from over 150,000 acres of permitted brine operations utilizing the Company's proprietary selective extraction technology."
- 131. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology was not scalable or economically viable; (2) Standard Lithium's LiSTR technology was based on three patent applications it had purchased from a oneman engineering shop in December 2018 which were duplicative of already-patented processes, and; (3) Standard Lithium was not "proving" "commercial viability" of its lithium extraction technology at the Demonstration Plant, and instead, was far from doing so—indeed, and contrary to Defendants' claims since December 3, 2020, Standard Lithium had not even achieved proof of concept and was far from achieving proof of concept where in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the Demonstration Plant and produced just 22 pounds of lithium carbonate, with a lithium recovery rate of about 14%.

132. The June 2021 Form 40-F incorporated by reference a press release issued by the Company on October 15, 2019, entitled "STANDARD LITHIUM COMPLETES INSTALLATION OF FINAL MODULES OF 'LISTR' DIRECT LITHIUM EXTRACTION DEMONSTRATION PLANT AT THE ARKANSAS PROJECT SITE." That press release described the operations at the Demonstration Plant as follows:

Targeted to Produce 100-150 Tonnes per Annum of Battery Quality Lithium Carbonate[.]

The Demonstration Plant is designed to continuously process an input tailbrine flow of 50 gallons per minute ... from the Lanxess South Plant, which is equivalent to an annual production of between 100-150 tonnes per annum Lithium Carbonate (LCE). The Demonstration Plant is based on Standard Lithium's proprietary LiSTR technology The environmentally friendly process eliminates the use of evaporation ponds, reduces processing time from months to hours and greatly increases the effective recovery of lithium.

[Standard Lithium] believes new lithium production can be brought on stream rapidly by ... leveraging advances in lithium extraction technologies and processes. The Company's flagship project is located in southern Arkansas, where it is engaged in the testing and proving of the commercial viability of lithium extraction from over 150,000 acres of permitted brine operations utilizing the Company's proprietary selective extraction technology. The Demonstration Plant will be used to prove commercial feasibility.

133. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology was not scalable, economically viable or commercially feasible; (2) Standard Lithium's LiSTR technology was based on three patent applications it had purchased from a one-man engineering shop in December 2018, none of which had been granted and which were duplicative of already-patented processes, and; (3) Standard Lithium was not proving "commercial viability" or "commercial feasibility" of its lithium extraction technology at the Demonstration Plant, and instead, was far from doing so—indeed, and contrary to Defendants'

claims since December 3, 2020, Standard Lithium had not even achieved proof of concept and was far from achieving proof of concept where in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the Demonstration Plant and produced just 22 pounds of lithium carbonate, with a lithium recovery rate of about 14%, and; (4) Standard Lithium had no reasonable basis to claim that its LiSTR technology was "targeted" to produce 100-150 tons per year of lithium carbonate at the Demonstration Plant, because in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the Demonstration Plant and produced just 22 pounds of lithium carbonate.

- 134. The October 15, 2019 press release quoted Defendant Robinson as stating:
- Our roll-out of the LiSTR direct lithium extraction Demonstration Plant continues to be executed on-schedule, and Standard Lithium would like to thank our project partners for all their efforts in keeping this Project constantly moving forward. We now have a full project team in place, and plant operators are currently undergoing process-specific training. We look forward to beginning the commissioning phase in November and starting the next exciting step of this Project.
- 135. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology was not scalable, economically viable or commercially feasible; (2) Standard Lithium's LiSTR technology was based on three patent applications it had purchased from a one-man engineering shop in December 2018, none of which had been granted and which were duplicative of already-patented processes, and; (3) operations at the Demonstration Plant were not "constantly moving forward" on time, and contrary to Defendants' claims since December 3, 2020, Standard Lithium had not achieved proof of concept—instead, it was far from achieving proof of concept where in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the Demonstration Plant and produced just 22 pounds of lithium carbonate, with a lithium recovery rate of about 14%.
- 136. The June 2021 Form 40-F incorporated by reference Standard Lithium's Management's Discussion and Analysis for the year ended June 30, 2019 (the "FY 2019 MD&A"),

signed by Norman and Mintak, wherein the Company touted the LANXESS PEA Conclusions, as quoted in ¶84, *supra*.

137. The foregoing statements were materially false and/or misleading because (1) Standard Lithium had no reasonable basis to claim that its LiSTR technology could achieve a final product lithium recovery rate of "about 90%", where in Q2 2021, the Company achieved a lithium recovery rate of about 14%; (2) Standard Lithium's LANXESS Project was not scalable or "economically viable"; (3) the LANXESS Project was not worth USD \$989 million because that valuation was based on the assumption that Standard Lithium could achieve a lithium recovery rate of about 90%, which Defendants knew the Company did not and could not reasonably achieve; (4) the results of the geological evaluation and resource estimates for the Preliminary Economic Assessment of LANXESS Project did not justify development of the project to further evaluate the feasibility of production of lithium carbonate because they were based on the assumption that Standard Lithium could achieve a lithium recovery rate of about 90%, which Defendants knew the Company did not and could not reasonably achieve; (5) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop—none of which had been granted and which duplicated already-patented processes, and; (6) in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the Demonstration Plant and produced just 22 pounds of lithium carbonate.

138. The June 2021 Form 40-F incorporated by reference Management's Discussion and Analysis for the three months ended September 30, 2019 (the "Q1 2020 MD&A"), signed by Norman and Mintak, wherein Defendants touted the LANXESS PEA Conclusions as quoted in ¶84, *supra*, which were materially false and misleading for the same reasons stated in ¶137, *supra*.

- 139. The June 2021 Form 40-F incorporated by reference a press release issued by the Company on December 2, 2019, which announced the "successful installation of the Company's industrial-scale Direct Lithium Extraction Demonstration Plant[.]" That press release also listed as one of the "KEY FEATURES OF THIS [LISTR] DISRUPTIVE TECHNOLOGY" that it "[v]astly increases recovery efficiencies to as much as >90%[.]" The press release touted the Demonstration Plant's design and the Company's "proprietary LiSTR Direct Lithium Extraction technology", which would be used "to continuously process an input tail brine flow of 50 gallons per minute ... which is equivalent to an annual production of between 100-150- tonnes per annum of Lithium Carbonate."
- 140. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology was not scalable, economically viable or commercially feasible; (2) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it had purchased from a one-man engineering shop in December 2018, none of which had been granted and which were duplicative of already-patented processes, and; (3) Standard Lithium had no reasonable basis to claim that its LiSTR technology "vastly increases recovery efficiencies to as much as >90%" or that the Demonstration Plant was targeted to produce the "equivalent to an annual production of between 100-150 tonnes per annum of Lithium Carbonate" because in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the Demonstration Plant and produced just 22 pounds of lithium carbonate, with a lithium recovery rate of about 14%.
 - 141. The December 2, 2019 press release quoted Defendant Mintak as saying:

[T]he commissioning of our industrial-scale pre-commercial plant will solidify Standard Lithium as one of the most advanced lithium projects in North America. Our recently completed Preliminary Economic Assessment contemplates the production of 20,900 tonnes of battery-quality lithium carbonate from existing brine flow, roughly five times the current domestic U.S. production The successful commissioning and operation of the LiSTR extraction technology will provide the proof of concept required for a commercial build decision and then potentially to become the largest producer of lithium chemicals in the United States.

142. The December 2, 2019 press release quoted Defendant Robinson as saying:

This is an exciting time for Standard Lithium as we rapidly execute our nearterm goal of demonstrating that lithium can be efficiently extracted, at an industrial scale, from Lanxess' tail-brine in Southern Arkansas.

- The foregoing statements were materially false and/or misleading because (1) 143. Standard Lithium's LiSTR technology was not scalable, economically viable or commercially feasible; (2) Standard Lithium's LiSTR technology was based on three patent applications it had purchased from a one-man engineering shop in December 2018, none of which had been granted and which were duplicative of already-patented processes; (3) Standard Lithium had no reasonable basis to claim that the commissioning and operation of the Demonstration Plant would "provide proof of concept", because contrary to Defendants' claims since December 3, 2020, Standard Lithium had not achieved proof of concept—instead, it was far from achieving proof of concept because in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the Demonstration Plant and produced just 22 pounds of lithium carbonate, with a lithium recovery rate of about 14%, and, accordingly; (4) Standard Lithium was not "rapidly" executing its goal of "demonstrating that lithium can be efficiently extracted, at an industrial scale, from Lanxess' tail-brine in Southern Arkansas."
- 144. The June 2021 Form 40-F incorporated by reference the Company's Annual Information Form for the fiscal year ended June 30, 2019 and Amended and Restated Annual Information Form for the fiscal year ended June 30, 2019 (the "2019 AIF"), signed by Norman and Mintak. The 2019 AIF stated reiterated that:

The Demonstration Plant is designed to continuously process an input tailbrine flow of 50 gallons per minute ... from the LANXESS South Plant facility in southern Arkansas ... which is equivalent to an annual production of between 100-150 tonnes per annum Lithium Carbonate Equivalent ("LCE"). The Demonstration Plant is based on the Company's proprietary LiSTR technology[.]

- 145. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology was not scalable or economically viable; (2) Standard Lithium had no reasonable basis to claim that its Demonstration Plant was "designed" to achieve "an annual production of between 100-150 tonnes per annum Lithium Carbonate Equivalent" where in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the Demonstration Plant and produced just 22 pounds of lithium carbonate, and; (3) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop—none of which had been granted and which duplicated already-patented processes.
- 146. The 2019 AIF again touted the LANXESS PEA Conclusions as quoted in ¶84, *supra*, which were materially false and misleading for the same reasons stated in ¶137, *supra*.
- 147. The June 2021 Form 40-F incorporated by reference Management's Discussion and Analysis for the six months ended December 31, 2019 (the "Q2 2020 MD&A"). The Q2 2020 MD&A was signed by Norman and Mintak and again touted the LANXESS PEA Conclusions as quoted in ¶84, *supra*, which were materially false and misleading for the same reasons stated in ¶137, *supra*.
- 148. The Q2 2020 MD&A stated that the Company "has developed a suite of Intellectual Property ('IP') related to novel technologies that can be deployed to either extract lithium from brine, or convert and purify intermediate lithium chemicals to higher purity materials."

- 149. The foregoing statements were materially false and/or misleading because the statements (1) omitted that Standard Lithium's relevant IP was not "novel" and instead, consisted merely of three patent applications—none of which had been granted—that the Company purchased in December 2018 from a one-man engineering shop, which described already-patented processes; (2) Standard Lithium's technology was not scalable, economically feasible, or commercially viable, and; (3) Standard Lithium's technology did not and realistically could not achieve the Company's claimed lithium recovery rate of 90%, such to produce 100-150 tons per year of lithium carbonate where in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the Demonstration Plant and produced just 22 pounds of lithium carbonate, with a lithium recovery rate of about 14%.
- 150. The June 2021 Form 40-F incorporated by reference a press release issued by the Company on March 9, 2020, which announced that the Company had produced "its first better than 99.9% battery quality lithium carbonate" using the Company's "proprietary 'SiFT' crystallization technology." That press release reiterated that the LiSTR technology being implemented at the Demonstration Plant was a "proprietary technology to selectively extract lithium from LANXESS' brine[,]" and that the technology "greatly increases the effective recovery of lithium." The March 9, 2020 press release quoted Defendant Robinson as saying,

We continue to improve the technology, in terms of performance, robustness and scalability. We are finalizing our efforts in terms of IP protection and the delivery of a full-scale crystallisation pilot plant to our South Arkansas Project site. The combination of the Company's SiFT and LiSTR technologies will provide a new platform for the production of battery-quality lithium compounds for current and next generation lithium-ion batteries.

The foregoing statements were materially false and/or misleading because (1) 151. Standard Lithium was not "finalizing" its "efforts in terms of IP protection" as the Company's relevant IP consisted merely of three patent applications—none of which had been granted—that the Company purchased in December 2018 from a one-man engineering shop, which described already-patented processes; (2) Standard Lithium's technology was not scalable, economically feasible, or commercially viable; (3) Standard Lithium was not continuing to improve its technology such to meet its claimed 90% lithium recovery rate, or such to produce 100-150 tons of lithium carbonate per year—in fact, in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the Demonstration Plant and produced just 22 pounds of lithium carbonate, with a lithium recovery rate of about 14%, and; (4) Standard Lithium was far from providing a "new platform for the production of battery-quality lithium compounds" because contrary to Defendants' claims since December 3, 2020, Standard Lithium had not even achieved proof of concept—instead, it was far from achieving proof of concept because in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the Demonstration Plant and produced just 22 pounds of lithium carbonate, with a lithium recovery rate of about 14%.

- D. **Defendants Continue To Make Materially False And Misleading Statements** About Standard Lithium's LiSTR DLE Technology And The Success Of The **LANXESS Project Through The End Of The Class Period**
- 152. On July 12, 2021, the Company announced in a press release that it had been added to the VanEck Vectors Rare Earth/Strategic Metals ETF. Mintak announced that, "On the heels of our recent announcement of the approval to list on the NYSE American, inclusion in the REMX is another step in demonstrating the evolution of Standard Lithium as we continue to execute our business plan and provide increased value for our shareholders."
- 153. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology was not scalable or economically viable; (2) Standard Lithium's LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop, none of which had been granted and that were duplicative of already-patented processes, and; (3) Standard Lithium had not been executing its "business

plan" and contrary to Defendants' claims since December 3, 2020, Standard Lithium had not achieved proof of concept—instead, it was far from achieving proof of concept because in Q3 2021, the Company processed 2,176,775 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate, and the Company was achieving far below its claimed 90% lithium recovery rate, with an average recovery rate of just 13% at its Demonstration Plant through Q3 2021.

On July 15, 2021, Standard Lithium announced in a press release and Form 6-K filed with the SEC that it had delivered the SiFT Plant from British Columbia to the LANXESS site. The press release further touted the Company's "proprietary LiSTR technology" being used "to selectively extract lithium from LANXESS' tailbrine" as a "scalable" process. The July 15, 2021 press release quoted Defendant Robinson as stating:

This work has been extremely successful, and we have produced large volumes of better-than battery quality lithium carbonate from lithium chloride concentrates made by the Arkansas Plant We're now thrilled to move the SiFT Plant to El Dorado ... and then operate the only continuous, 24/7 start-to-finish brine-to-carbonate plant in North America.

The foregoing statements were materially false and/or misleading because (1) 155. Standard Lithium's LiSTR technology was not scalable or economically viable; (2) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop, none of which had been granted and that were duplicative of already-patented processes; (3) Standard Lithium had not produced "large volumes of better-than battery quality lithium carbonate from lithium chloride concentrates made by the Arkansas Plant" and instead, had produced a mere 66 pounds total of lithium carbonate from lithium chloride concentrates made by the Demonstration Plant, and; (4) Standard Lithium's work at its LANXESS Project had not been "extremely successful" as, contrary to Defendants' claims since December 3, 2020, Standard Lithium had not achieved proof of concept—instead, it was far from achieving proof of concept because in Q3 2021, the Company processed 2,176,775 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate, and achieved a lithium recovery rate of about 12%.

156. On September 1, 2021, Standard Lithium provided an update on its Demonstration Plant and SiFT Plant via a press release and Form 6-K filed with the SEC. The Company stated that it expected "fully integrated operations to commence during September." The press release further touted the Company's "proprietary LiSTR technology" being used "to selectively extract lithium from LANXESS' tailbrine" as a "scalable" process. The September 1, 2021 press release quoted Defendant Robinson as stating:

Our project execution efforts continue and with the final stages of commissioning and integration almost finished, we are now in the final stages of running the only continuous, 24/7 start-to-finish brine-to-carbonate plant in North America.

157. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology was not scalable or economically viable; (2) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop, none of which had been granted and that were duplicative of already-patented processes—indeed, one of the patents had been denied by the USPTO as "unpatentable," citing several other patents that already described similar processes, and; (3) Defendants had not succeeded in their "project execution efforts", as, contrary to Defendants' claims since December 3, 2020, Standard Lithium had not achieved proof of concept—instead, it was from achieving proof of concept because in Q3 2021, the Company processed 2,176,775 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate and achieved a 12% lithium recovery rate.

- 158. On October 12, 2021, the Company announced in a press release and Form 6-K filed with the SEC that it had received a preliminary economic assessment of its South-West Arkansas Lithium Project ("SWA Project"), the Company's tangential project also focused on extracting lithium from the Smackover Formation from brine owned by Tetra Technologies, Inc. The press release further touted the Company's "proprietary LiSTR technology" being used "to selectively extract lithium from LANXESS' tailbrine" as a "scalable" process, stating that the technology "is currently being successfully tested by the Company at their Demonstration Plant in Union County, Arkansas. This Demonstration Plant has been successfully operating at a pre-commercial scale since May 2020."
- Standard Lithium's LiSTR technology was not scalable or economically viable; (2) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop, none of which had been granted and that were duplicative of already-patented processes—indeed, one of the patents had been denied by the USPTO as "unpatentable," citing several other patents that already described similar processes, and; (3) Standard Lithium's technology was not "being successfully tested" at the Demonstration Plant and the Demonstration Plant had not been "successfully operating", and contrary to Defendants' claims since December 3, 2020, Standard Lithium had not achieved proof of concept—instead, it was far from achieving proof of concept because in Q3 2021, the Company processed 2,176,775 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate, and Standard Lithium was achieving far below its claimed 90% lithium recovery rate with a lithium recovery rate of about 12% in Q3 2021.
 - 160. The October 12, 2021 press release quoted Defendant Robinson as saying:

The ability to showcase this PEA and highlight these attractive project fundamentals is based on the many tens-of-thousands of hours that the broader Standard Lithium team has spent over the past few years proving and de-risking our lithium extraction technology at pre-commercial scales. It is because of our large-scale technology proof that we can hope to deploy it, in the future, on our other assets in the region. The attractive potential economics from this PEA support continued effort to de-risk and advance the SWA Project in parallel with the Company's immediate focus, which is to deliver the first new lithium production facility in North America at the Lanxess facilities.

- 161. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology was not scalable or economically viable; (2) Standard Lithium's LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop, none of which had been granted and that were duplicative of already-patented processes—indeed, one of the patents had been denied by the USPTO as "unpatentable," citing several other patents that already described similar processes; (3) contrary to Defendants' claims since December 3, 2020, Standard Lithium had not achieved proof of concept—instead, it was far from achieving proof of concept because in Q3 2021, the Company processed 2,176,775 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate, and Standard Lithium was achieving far below its claimed 90% lithium recovery rate with a lithium recovery rate of about 12% in Q3 2021, and, accordingly; (4) Standard Lithium was nowhere near delivering the "first new lithium production facility in North America at the LANXESS facilities."
- 162. On October 22, 2021, Standard Lithium published Management's Discussion & Analysis for the year ended June 30, 2021 ("FY 2021 MD&A"). The FY 2021 MD&A described the Company's Demonstration Plant as follows:

The Demonstration Plant utilizes the company's proprietary LiSTR technology to selectively extract lithium from brine that is a byproduct of existing bromine production facilities run by LANXESS The Demonstration Plant is being used for proof-of-concept and commercial feasibility studies The Demonstration

Plant is designed to continuously process an input tail brine flow of 50 gallons per minute (gpm; or 11.4 m3/hr) from the LANXESS South Plant, which is equivalent to an annual production of between 100-150 tonnes per annum of Lithium Carbonate.

- The foregoing statements were materially false and/or misleading because (1) 163. Standard Lithium had no reasonable basis to claim that its LiSTR technology implemented at the Demonstration Plant was "designed to" produce 100-150 tonnes per annum of lithium carbonate, where in O3 2021, the Company processed 2,176,775 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate; (2) Standard Lithium's LiSTR technology was not scalable or economically viable; (3) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 which were duplicative of already-patented processes, none that had been granted and one which had already been denied by the USPTO as "unpatentable", and; (4) contrary to Defendants' claims since December 3, 2020, Standard Lithium had not achieved proof of concept and was far from achieving proof of concept because it had produced 0 pounds of lithium carbonate in Q3 2021 and had achieved a lithium recovery rate of about 12% in Q3 2021 at the Demonstration Plant.
- 164. The FY MD&A 2021 stated that "The Company has developed a suite of Intellectual Property ('IP') related to novel technologies that can be deployed to either selective extract lithium from brine or convert and purify intermediate lithium chemicals to higher purity materials. The IP suite is protected by a series of patent applications[.]"
- 165. The foregoing statements were materially false and/or misleading because the statements (1) Standard Lithium's technologies were not "novel" and were based on three patent applications it purchased in December 2018 from a one-man engineering shop, none of which had been granted and that were duplicative of already-patented processes—indeed, one of the patents had been denied by the USPTO as "unpatentable," citing several other patents that already

described similar processes; (2) Standard Lithium's technology was not scalable, economically feasible, or commercially viable, and; (3) Standard Lithium's technology did not and could not work as represented (i.e., achieve a lithium recovery rate of about 90% or an annual production of 100-150 tons of lithium carbonate).

- On October 28, 2021, Standard Lithium filed an annual report on Form 40-F with 166. the SEC, reporting the Company's financial and operating results for its fourth quarter and fiscal year ended June 30, 2021 (the "2021 40-F"). The 2021 40-F was amended on November 8, 2021 to add the XBRL Interactive Data Files required to be submitted and posted pursuant to Rule 405 of Regulation S-T. Incorporated by reference into the 2021 Form 40-F were the following exhibits: the Annual Information Form of the Company for the year ended June 30, 2021; Management's Discussion & Analysis of the Company for the year ended June 30, 2021 ("FY 2021 MD&A"), and; the Audited Consolidated Financial Statements of the Company for the year ended June 30, 2021. The 2021 40-F was signed by Defendants Mintak and Norman.
- 167. The 2021 40-F and the FY 2021 MD&A both touted the LANXESS PEA Conclusions, as quoted in ¶84, *supra*.
- 168. The foregoing statements in the Lanxess PEA were materially false and/or misleading because they misrepresented or failed to disclose that: (1) Standard Lithium had no reasonable basis to claim that its LiSTR technology could achieve a final product lithium recovery rate of "about 90%" because the Company was achieving far below its claimed 90% recovery rate, with a lithium recovery rate of about 12% in Q3 2021; (2) Standard Lithium's LANXESS Project was not scalable or "economically viable"; (3) the LANXESS Project was not worth USD \$989 million because that valuation was based on the assumption that Standard Lithium could achieve a lithium recovery rate of about 90%, which Defendants knew the Company did not and

realistically could not achieve; (4) the results of the geological evaluation and resource estimates for the Preliminary Economic Assessment of LANXESS Project did not justify development of the project to further evaluate the feasibility of production of lithium carbonate because they were based on the assumption that Standard Lithium could achieve a lithium recovery rate of about 90%, which Defendants knew the Company did not and realistically could not achieve; (5) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop, none of which had been granted and that were duplicative of already-patented processes—indeed, one of the patents had been denied by the USPTO as "unpatentable," citing several other patents that already described similar processes, and; (6) in Q3 2021, the Company processed 2,176,775 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate.

- 169. On November 12, 2021, Standard Lithium published Management's Discussion and Analysis for the three months ended September 30, 2021 (the "Ql 2022 MD&A"). The Ql 2022 MD&A repeated the LANXESS PEA Conclusions, as quoted in ¶84, supra, which were materially false and misleading for the same reasons as stated in ¶168, supra.
- 170. On January 10, 2022, the Company participated in the BofA Securities Virtual Battery and Storage Conference. Defendant Mintak touted the Company's lithium extraction technology and the status of the LANXESS Project:

South Arkansas is home to the largest brine processing industry in North America ... The same brine they produce bromine from is rich in lithium, that's what attracted us to getting into Arkansas. It requires a different approach to get that out of the brine and into a condition to be able to turn it into lithium chemical. And that's the approach that we've taken as a technology developer, be able to leverage all of that existing infrastructure that exists in this region and be able to move that and develop a commercial lithium project.

Our direct extraction technology ... it's a process we've tailored for the chemistry of the project in Arkansas. We've taken it from tabletop bench scale to pilot to now operating a industrial-scale pre-commercial demonstration plant at the site. We continue as fashion, so that we can get all of the data, make all of the improvements and capture all of the optimizations to design a commercial plant The process is scalable.

- The foregoing statements were materially false and/or misleading because (1) 171. Standard Lithium's claims that the Demonstration Plant was "now operating [at] a[n] industrial scale" and "[t]he process is scalable" were false or misleading because Standard Lithium's LiSTR technology was not scalable or economically viable; (2) contrary to Defendants' claims about Standard Lithium's technology being "tailored" for its operations, the LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop, none of which had been granted and that were duplicative of already-patented processes indeed, two of the patents had been denied by the USPTO as "unpatentable," citing several other patents that already described similar processes; (3) contrary to Defendants' claims since December 3, 2020, Standard Lithium had not achieved proof of concept—instead, it was far from achieving proof of concept because in Q3 2021, the Company processed 2,176,775 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate and a lithium recovery rate of about 12%, and; (4) because Standard Lithium had not even achieved proof of concept, it was nowhere near achieving commercialization.
- 172. At the same the BofA Securities Virtual Battery and Storage Conference on January 10, 2022, Defendant Mintak had the following exchange regarding the status of the LANXESS JV:
 - <Q Matthew DeYoe>: What exactly Lanxess is kind of looking for from a milestone perspective from the agreement before the kind of go decision is given?
 - <A Robert Mintak>: So we have the initial commercial plant designs, meet all of the criteria for the hydraulic conditions that are required and the design

decisions and all of the brine supply contracts and sites of the service agreements and all of those elements are finalized The delays if you want to call them that has been the COVID oneWe're both working through the commercial arrangements, so that they are satisfactory to both parties. So it's not a one side what are they waiting for.

- The foregoing statements were materially false and/or misleading because Standard 173. Lithium omitted that contrary to Defendants' claims since December 3, 2020, Standard Lithium had not achieved proof of concept, which was a necessary requirement to finalize the LANXESS JV —instead, Standard Lithium was far from achieving proof of concept because in Q3 2021, the Company processed 2,176,775 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate and had achieved a lithium recovery rate of about 12%.
- 174. On January 20, 2022, the Company provided an update in a press release and Form 6-K filed with the SEC that the SiFT Plant had been installed at the site of the Demonstration Plant and had been successfully commissioned. The press release touted the Company's "proprietary LiSTR technology" being used "to selectively extract lithium from LANXESS' tailbrine" as a "scalable" process and stated:

The Standard Lithium Demonstration Plant produces first-of-its-kind start-tofinish DLE to battery quality lithium carbonate in a single integrated process ... The 'SiFT' lithium carbonate plant was installed at the [Demonstration Plant] site in O3 2021 [] and has been successfully commissioned and used to produce battery quality lithium carbonate at the plant This is the first of its kind demonstration of a continuous Direct Lithium Extraction (DLE) plant being operated at scale Completion of this phase of work is another important milestone for the Company and its technology-driven approach to development The current iteration of the Company's proprietary LiSTR DLE demonstration plant in El Dorado also uses a novel osmotically assisted High Pressure Reverse Osmosis (HPRO) unit to concentrate the LiCI solution prior to carbonation. This HPRO unit was successfully integrated into the plant and has been operating according to design criteria since September 2021 and consistently producing LiCI solutions containing approximately 7,000 mg/L.

The January 20, 2022 press release quoted Defendant Robinson as stating: 175.

We've continued to integrate processes into our El Dorado Demonstration plant, so that we now have the only continuous, 24/7 start-to-finish brine-to-carbonate plant in North America. Owing to the keystone investment into the Company by Koch Strategic Platforms in Q4 last year, we've been able to grow our team and commission intensive studies that start us on the real path towards commercialization. We and our partners have significantly increased our knowledge of the scale-up process and have a better understanding of what the first commercial plant will look like.

176. The foregoing statements were materially false and/or misleading because (1) Standard Lithium's LiSTR technology was not scalable or economically viable; (2) Standard Lithium's "proprietary" LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop, none of which had been granted and that were duplicative of already-patented processes—indeed, two of the patents had been denied by the USPTO as "unpatentable," citing several other patents that already described similar processes; (3) the LANXESS Project had not been operating "successfully" and in Q3 2021, the Company processed 2,176,775 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate, and; (4) Standard Lithium had not met another "milestone" and was not on the "path towards commercialization", because contrary to Defendants' claims since December 3, 2020, Standard Lithium had not even achieved proof of concept—instead, it was from achieving proof of concept because in Q3 2021, the Company processed 2,176,775 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate, and achieved a lithium recovery rate of about 12%.

177. On February 3, 2022, the Company issued a press release stating that under Mintak's leadership, the Company had "achieved substantial progress by completing several scaleups of the technology, successfully operating the demonstration plant at the facility in Arkansas since May 2020 and advancing the project towards commercialization."

178. The foregoing statements were materially false and/or misleading because (1) Standard Lithium had not been "successfully operating" the Demonstration Plant such to demonstrate annual production of 100-150 tons per year of lithium carbonate and, in fact, in Q3 2021, the Company processed 2,176,775 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate; (2) Standard Lithium's LiSTR technology was not scalable or economically viable; (3) Standard Lithium's LiSTR technology was based on three patent applications it purchased in December 2018 from a one-man engineering shop, none of which had been granted and that were duplicative of already-patented processes—indeed, two of the patents had been denied by the USPTO as "unpatentable," citing several other patents that already described similar processes, and; (4) Standard Lithium was not "advancing" towards "commercialization," because contrary to Defendants' claims since December 3, 2020, Standard Lithium had not even achieved proof of concept—instead, it was from achieving proof of concept because in Q3 2021, the Company processed 2,176,775 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate and achieved a lithium recovery rate of about 12%.

VI. LOSS CAUSATION

- 179. Defendants' wrongful conduct, as alleged herein, directly and proximately caused the economic losses suffered by Plaintiff and the Class.
- 180. Throughout the Class Period, as detailed herein, Defendants made materially false and/or misleading statements and/or omissions. This course of wrongful conduct caused the price of Standard Lithium securities to be artificially inflated. But for Defendants' misrepresentations and/or omissions, Plaintiff and the other members of the Class would not have purchased Standard Lithium securities or would not have purchased such securities at artificially inflated prices. Later,

when Defendants' prior misrepresentations and/or omissions were disclosed to the market, and/or when the concealed risks materialized, the price of Standard Lithium shares fell significantly as the prior artificial price inflation was dissipated. As a result of their purchases and/or acquisition of Standard Lithium securities during the Class Period, Plaintiff and other members of the Class suffered economic losses, *i.e.*, damages, under the Exchange Act. The timing and magnitude of the decline in the prices of the Company's shares negate any inference that the economic losses and damages suffered by Plaintiff and other members of the Class were caused by changed market conditions, macroeconomic factors, or Company-specific facts unrelated to Defendants' wrongful conduct.

181. As detailed *supra*, the truth regarding the Company's lithium extraction processes and technology was partially revealed, and/or the concealed risks materialized, on November 18, 2021 and February 3, 2022. As a direct result of these partial disclosures, the price of Standard Lithium's stock declined significantly, precipitously, thereby damaging investors as the artificial inflation in Standard Lithium's stock price was removed.

VII. ADDITIONAL SCIENTER ALLEGATIONS

A. Defendants' Access To Information And Core Operations

182. As alleged herein, Defendants acted with scienter since Defendants knew that the public documents and statements issued or disseminated in the name of the Company were materially false and/or misleading; knew that such statements or documents would be issued or disseminated to the investing public; and knowingly and substantially participated or acquiesced in the issuance or dissemination of such statements or documents as primary violations of the federal securities laws. As set forth elsewhere herein in detail, the Individual Defendants, by virtue of their receipt of information reflecting the true facts regarding Standard Lithium, their control

over, and/or receipt and/or modification of Standard Lithium's allegedly materially misleading misstatements and/or their associations with the Company which made them privy to confidential proprietary information concerning Standard Lithium, participated in the fraudulent scheme alleged herein.

- The Individual Defendants' scienter is also established because the alleged 183. misstatements and omissions at issue here concerned Standard Lithium's core operations. As Defendants stated in the MD&A for the six months ended December 31, 2020 and repeatedly throughout the Class Period, the LANXESS Project was Standard Lithium's "flagship project," and "The Company's focus is on advancing its south Arkansas lithium project towards commercial production." And, as the Company stated in its Annual Information Form for the fiscal year ended June 30, 2021, "The Company's business strategy depends in large part on developing the Arkansas Lithium Project into a commercially viable mine."
- 184. The Company also stood to enter a lucrative joint venture with LANXESS upon achieving proof of concept, whereby, as described in the Company's Annual Information Form for the fiscal year ended June 30, 2021, Standard Lithium "would initially hold a 30% equity interest Subject to the satisfaction of certain conditions, the Company would have the option to increase its interest in the joint venture to 40%."
- 185. The Individual Defendants' scienter is further supported by the fact that the Company, at all relevant times, was very small and had no employees and no more than seven directors and officers. For example, as the Company reported in its Annual Information Form for the fiscal year ended June 30, 2021, "As of the date of this AIF, the Company did not have any employees...."

- 186. The Individual Defendants' scienter is supported by the data Standard Lithium submitted in its quarterly filings with the Commission, which contradicted the Individual Defendants' public statements throughout the Class Period. The Brine and Lithium Production Report (the "Brine and Lithium Production Report") filed by the Company in October 2021 with the Commission showed that Standard Lithium produced a mere 66 pounds of lithium carbonate over six quarters (or 18 months of operations).
- Indeed, the Brine and Lithium Production Report showed that in Q2 2020, the 187. Company processed 362,952 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate; in Q3 2020, the Company processed 1,618,731 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate; in Q4 2020, the Company processed 1,566,221 gallons of raw brine at the Demonstration Plant and produced 44 pounds of lithium carbonate; in Q1 2021, the Company processed 733,854 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate; in Q2 2021, the Company processed 1,702,835 gallons of raw brine at the Demonstration Plant and produced 22 pounds of lithium carbonate, and; in Q3 2021, the Company processed 2,176,775 gallons of raw brine at the Demonstration Plant and produced 0 pounds of lithium carbonate.
- 188. Pursuant to the Blue Orca Report's analysis of The Brine and Lithium Production Report, Standard Lithium's lithium recovery rate had achieved far below the Company's claimed 90% lithium recovery rate, with an average lithium recovery rate of just 13% from October 2020 to October 2021.
- 189. In addition, contrary to Defendants' claims that Standard Lithium had "successfully" achieved "proof of concept" by December 2020, an Order dated November 8, 2021, from the Commission revealed an extension of time had been sought by Standard Lithium and

Lanxess to "to test commercial viability of extracting lithium from tail brine produced from the Smackover Limestone formation underlying LANXESS' brine field in Union County, Arkansas." In other words, Standard Lithium had *not* successfully completed testing that established "proof of concept" back in December 2020.

Further, as Hindenburg Research reported, a LANXESS spokesperson had told 190. Hindenburg Research as of early 2022 that with respect to the LANXESS Project, proof of concept had not yet been proven:

There's still some steps to go and things to test out but we're working on that. We don't have a timeline. There was a letter of intent so let's see how we work together once proof-of-concept is there.

191. Thus, LANXESS's representations as reported by Hindenburg Research directly contradict Defendants' representations that Standard Lithium had achieved proof of concept and supports the Individual Defendants' scienter.

В. Standard Lithium Was Reliant On Fundraising To Remain A Going Concern

The ability of the Company to demonstrate proof of concept and achieve 192. commercialization of its lithium extraction technologies was crucial to the Company's survival. For example, the Company stated in its Annual Information Form filed on October 28, 2020, that:

The Company's business strategy depends in large part on developing the Arkansas Lithium Project into a commercially viable mine If the Company is unable to develop all or any of its projects into a commercial operating mine, its business and financial condition will be materially adversely affected.

193. Defendants were motivated to issue misstatements regarding the Company's LiSTR technology and the progress of operations at its Demonstration Plant towards proof of concept, commercialization and a final purchase agreement for financial reasons. The Company has incurred significant operating losses since its inception, and was critically low on cash throughout the Class Period. As Blue Orca reported, since 2017, Standard Lithium has raised USD

\$80 million via dilutive equity issuances, but had burned through nearly 60 million of it. On October 27, 2020, the Company issued its financial statements for the year ended June 30, 2020, wherein its auditor stated:

[T]he Company has no sources of revenue and as at June 30, 2020 had an accumulated deficit of C \$43,183,131 and a working capital deficiency of C \$2,605,318. These matters raise significant doubt regarding the Company's ability to continue as a going concern. The Company's ability to continue as a going concern is dependent upon its ability to raise equity financings.

Between FY 2020 and FY 2021, the Company had a combined net loss of C 194. \$34,961,744. Therefore, Defendants were motivated to issue materially false and misleading statements so that Standard Lithium could raise cash at inflated levels to infuse much needed funds into the Company.

195. In order to stem the flow of losses, boost cash on hand, and provide necessary funding for the Company's operations through the Demonstration Plant, including funding for continued research and development, the Company had to regularly raise funds through selling the Company's common shares and other securities. For example: the Company raised gross proceeds of C \$12,105,165 in a private placement offering on February 21, 2020; on December 2, 2020, the Company announced an offering of its common shares and announced completion of that offering on December 18, 2020, with gross proceeds of C \$34,534,500, which would "be used to fund ongoing work programs to advance the LANXESS Project, including ongoing testing and optimization work underway at the [SiFT Plant] and the [Demonstration Plant], preliminary engineering work to advance commercial development of the Company's proprietary lithium extraction process, negotiation and development of a joint venture with LANXESS Corporation, and for working capital and general corporate purposes[,]" and; On December 1, 2021, the Company announced the completion of a USD \$100 million investment by Koch through a direct private placement, which would be used to, inter alia, "continue to rapidly advance the first commercial project proposed for the Lanxess facility[.]"

196. Further, the Company incurred numerous financial obligations related to its exploration and evaluation efforts. For example, on May 1, 2017, the Company signed a Property Lease Agreement with National Chloride Company of America, which required the Company to, inter alia, pay minimum annual royalty payments of USD \$500,000; on December 29, 2017, the Company entered into an option agreement with TETRA Technologies, Inc. ("TETRA"), to acquire certain rights to conduct brine exploration and lithium extraction activities in Arkansas, which required the Company to pay a total of USD \$2.55 million between January 28, 2018 and December 29, 2020, with additional payments of USD \$1 million to be made annually, and; on April 23, 2018, the Company entered into an exploration and option agreement with TETRA to secure access to additional operating and permitted land for lithium extraction activities wherein the Company was required to pay a total of USD \$2.7 million under the agreement and issue an aggregate of 3.4 million shares to TETRA. Further, in connection with the MOU the Company signed with LANXESS, the Company was required to pay an initial fee of USD \$3 million. Subsequently, on October 30, 2019, the Company entered into a USD \$5 million loan and guarantee agreement with LANXESS, which would be due and payable to LANXESS on the fifth anniversary.

C. The Individual Defendants Had Previously Touted "Proprietary" DLE **Technology And Knew That It Did Not Work**

197. Further, as the Hindenburg Report stated, prior to Standard Lithium, the Individual Defendants had been involved with a company named Pure Energy Minerals, which also "touted proprietary DLE technology" and then ultimately failed. The Hindenburg Report stated:

Robert Mintak's role immediately prior to Standard Lithium was as CEO of Pure Energy Minerals, another lithium company that, like Standard Lithium, touted proprietary DLE technology. Pure Energy used extensive stock promotion but failed to commercialize DLE. Its stock crashed ~98%, with executives moving on to Standard Lithium Standard Lithium's CEO, COO, Chairman, and VP of Exploration all came from Pure Energy Minerals Standard Lithium appears to [] to be a regurgitation of Mintak's prior company, Pure Energy Minerals, using the same Vancouver stock playbook as Mintak's numerous other failed ventures.

198. In addition, each of the Class Period filings was signed by Defendants Mintak and Norman, and included certifications by them as to the accuracy of the filings' contents.

D. Standard Lithium's Corporate Scienter Is Alleged

- 199. Each of the Individual Defendants was a high-ranking management-level employee of Standard Lithium. The scienter of each of the Individual Defendants and of all other management-level employees of Standard Lithium, including each high-ranking officer or director, is imputable to Standard Lithium. The knowledge of each of these individuals should therefore be imputed to Standard Lithium for the purposes of assessing corporate scienter.
- 200. Even aside from the scienter of the Individual Defendants, the facts alleged herein raise a strong inference of corporate scienter as to Standard Lithium as an entity. Corporate scienter may be alleged independent of individual defendants where a statement would have been approved by corporate officials sufficiently knowledgeable about the company to know the statement was false. Here, the statements alleged were made to the investing public regarding the Company's operations, finances, business practices and lithium extraction processes—all important topics that would necessarily require approval by appropriate corporate officers who, as alleged, had very different information in their hands at the time from what was disclosed to the investor.

VIII. PLAINTIFF'S CLASS ACTION ALLEGATIONS

201. Plaintiff brings this action as a class action pursuant to Federal Rule of Civil Procedure 23(a) and (b)(3) on behalf of a class, consisting of all persons and entities that purchased or otherwise acquired Standard Lithium common stock on the OTCQX between May 19, 2020 and July 12, 2021, and between July 13, 2021 and February 3, 2022, on the NYSE, inclusive, and who were damaged thereby (the "Class"). Excluded from the Class are Defendants, the officers, and directors of the Company, at all relevant times, members of their immediate families and their legal representatives, heirs, successors, or assigns, and any entity in which Defendants have or had a controlling interest.

- 202. The members of the Class are so numerous that joinder of all members is impracticable. Throughout the Class Period, Standard Lithium's shares actively traded on the OTCQX and NYSE. While the exact number of Class members is unknown to Plaintiff at this time and can only be ascertained through appropriate discovery, Plaintiff believes that there are at least hundreds or thousands of members in the proposed Class. Millions of Standard Lithium shares were traded publicly during the Class Period on the OTCQX and NYSE. Record owners and other members of the Class may be identified from records maintained by Standard Lithium or its transfer agent and may be notified of the pendency of this action by mail, using the form of notice similar to that customarily used in securities class actions.
- 203. Plaintiff's claims are typical of the claims of the members of the Class as all members of the Class are similarly affected by Defendants' wrongful conduct in violation of federal law that is complained of herein.
- 204. Plaintiff will fairly and adequately protect the interests of the members of the Class and has retained counsel competent and experienced in class and securities litigation.
- 205. Common questions of law and fact exist as to all members of the Class and predominate over any questions solely affecting individual members of the Class. Among the questions of law and fact common to the Class are:

- whether the federal securities laws were violated by Defendants' acts as (a) alleged herein;
- (b) whether statements made by Defendants to the investing public during the Class Period omitted and/or misrepresented material facts about the business, operations, and prospects of Standard Lithium; and
- (c) whether Defendants acted knowingly or recklessly in issuing false and misleading SEC filings and public statements during the Class Period;
- (d) whether the prices of the Company's securities during the Class Period were artificially inflated because of the Defendants' conduct complained of herein; and,
- (e) to what extent the members of the Class have sustained damages and the proper measure of damages.
- 206. A class action is superior to all other available methods for the fair and efficient adjudication of this controversy since joinder of all members is impracticable. Furthermore, as the damages suffered by individual Class members may be relatively small, the expense and burden of individual litigation makes it impossible for members of the Class to individually redress the wrongs done to them. There will be no difficulty in the management of this action as a class action.
- 207. Plaintiff will rely, in part, upon the presumption of reliance established by the fraudon-the-market doctrine in that:
- Defendants made public misrepresentations or failed to disclose material (a) facts during the Class Period;
 - (b) the omissions and misrepresentations were material;
 - (c) the Company's securities are traded in efficient markets;

- (d) the Company's securities were liquid and traded with moderate to heavy volume during the Class Period;
- (e) the Company traded on the OTCQX and NYSE, and was covered by market analysts;
- (f) the misrepresentations and omissions alleged would tend to induce a reasonable investor to misjudge the value of the Company's securities;
- (g) Plaintiff and members of the Class purchased and/or sold the Company's securities between the time the Defendants failed to disclose or misrepresented material facts and the time the true facts were disclosed, without knowledge of the omitted or misrepresented facts; and;
- (h) unexpected material news about the Company was rapidly reflected in and incorporated into the Company's stock price during the Class Period.
- 208. Based upon the foregoing, Plaintiff and the members of the Class are entitled to a presumption of reliance upon the integrity of the market.
- 209. Alternatively, Plaintiff and the members of the Class are entitled to the presumption of reliance established by the Supreme Court in *Affiliated Ute Citizens of the State of Utah v. United States*, 406 U.S. 128, 92 S. Ct. 2430 (1972), as Defendants omitted material information in their Class Period statements in violation of a duty to disclose such information, as detailed above.

IX. APPLICABILITY OF PRESUMPTION OF RELIANCE (FRAUD-ON-THE-MARKET DOCTRINE)

210. The market for Standard Lithium's securities was open, well-developed and efficient at all relevant times. As a result of the materially false and/or misleading statements and/or failures to disclose, Standard Lithium's securities traded at artificially inflated prices during the Class Period. On October 27, 2021, the Company's share price reached a Class Period high of

\$12.92 per share. Plaintiff and other members of the Class purchased or otherwise acquired the Company's securities relying upon the integrity of the market price of Standard Lithium's securities and market information relating to Standard Lithium, and have been damaged thereby.

- During the Class Period, the artificial inflation of Standard Lithium's shares was 211. caused by the material misrepresentations and/or omissions particularized in this Complaint causing the damages sustained by Plaintiff and other members of the Class. As described herein, during the Class Period, Defendants made or caused to be made a series of materially false and/or misleading statements about Standard Lithium's business, prospects, and operations. These material misstatements and/or omissions created an unrealistically positive assessment of Standard Lithium and its business, operations, and prospects, thus causing the price of the Company's securities to be artificially inflated at all relevant times, and when disclosed, negatively affected the value of the Company shares. Defendants' materially false and/or misleading statements during the Class Period resulted in Plaintiff and other members of the Class purchasing the Company's securities at such artificially inflated prices, and each of them has been damaged as a result.
- 212. At all relevant times, the market for Standard Lithium's securities was an efficient market for the following reasons, among others:
- (a) Standard Lithium shares met the requirements for listing, and was listed and actively traded on the OTCQX and NYSE, a highly efficient and automated market;
- (b) As a regulated issuer, Standard Lithium filed periodic public reports with the SEC and/or the NYSE;
- Standard Lithium regularly communicated with public investors via (c) established market communication mechanisms, including through regular dissemination of press

releases on the national circuits of major newswire services and through other wide-ranging public disclosures, such as communications with the financial press and other similar reporting services; and/or

- Standard Lithium was followed by securities analysts employed by (d) brokerage firms who wrote reports about the Company, and these reports were distributed to the sales force and certain customers of their respective brokerage firms. Each of these reports was publicly available and entered the public marketplace.
- 213. As a result of the foregoing, the market for Standard Lithium's securities promptly digested current information regarding Standard Lithium from all publicly available sources and reflected such information in Standard Lithium's share price. Under these circumstances, all purchasers of Standard Lithium's securities during the Class Period suffered similar injury through their purchase of Standard Lithium's securities at artificially inflated prices and a presumption of reliance applies.
- 214. A Class-wide presumption of reliance is also appropriate in this action under the Supreme Court's holding in Affiliated Ute Citizens of Utah v. United States, 406 U.S. 128 (1972), because the Class's claims are, in large part, grounded on Defendants' material misstatements and/or omissions. Because this action involves Defendants' failure to disclose material adverse information regarding the Company's business operations and financial prospects—information that Defendants were obligated to disclose—positive proof of reliance is not a prerequisite to recovery. All that is necessary is that the facts withheld be material in the sense that a reasonable investor might have considered them important in making investment decisions. Given the importance of the Class Period material misstatements and omissions set forth above, that requirement is satisfied here.

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X. NO SAFE HARBOR

215. The statutory safe harbor provided for forward-looking statements under certain circumstances does not apply to any of the allegedly false statements pleaded in this Complaint. The statements alleged to be false and misleading herein all relate to then-existing facts and conditions. In addition, to the extent certain of the statements alleged to be false may be characterized as forward looking, they were not identified as "forward-looking statements" when made and there were no meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those in the purportedly forward-looking statements. In the alternative, to the extent that the statutory safe harbor is determined to apply to any forward-looking statements pleaded herein, Defendants are liable for those false forward-looking statements because at the time each of those forward-looking statements was made, the speaker had actual knowledge that the forward-looking statement was materially false or misleading, and/or the forward-looking statement was authorized or approved by an executive officer of Standard Lithium who knew that the statement was false when made.

XI. CAUSES OF ACTION

FIRST CLAIM

Violation of Section 10(b) of The Exchange Act and Rule 10b-5 Promulgated Thereunder <u>Against All Defendants</u>

- 216. Plaintiff repeats and re-alleges each and every allegation contained above as if fully set forth herein.
- 217. During the Class Period, Defendants carried out a plan, scheme and course of conduct which was intended to and, throughout the Class Period, did: (i) deceive the investing public, including Plaintiff and other Class members, as alleged herein; and (ii) cause Plaintiff and

other members of the Class to purchase Standard Lithium's securities at artificially inflated prices.

In furtherance of this unlawful scheme, plan and course of conduct, Defendants, and each defendant, took the actions set forth herein.

- 218. Defendants (i) employed devices, schemes, and artifices to defraud; (ii) made untrue statements of material fact and/or omitted to state material facts necessary to make the statements not misleading; and (iii) engaged in acts, practices, and a course of business which operated as a fraud and deceit upon the purchasers of the Company's securities in an effort to maintain artificially high market prices for Standard Lithium's securities in violation of Section 10(b) of the Exchange Act and Rule 10b-5. All Defendants are sued either as primary participants in the wrongful and illegal conduct charged herein or as controlling persons as alleged below.
- 219. Defendants, individually and in concert, directly and indirectly, by the use, means or instrumentalities of interstate commerce and/or of the mails, engaged and participated in a continuous course of conduct to conceal adverse material information about Standard Lithium's financial well-being and prospects, as specified herein.
- 220. Defendants employed devices, schemes and artifices to defraud, while in possession of material adverse non-public information and engaged in acts, practices, and a course of conduct as alleged herein in an effort to assure investors of Standard Lithium's value and performance and continued substantial growth, which included the making of, or the participation in the making of, untrue statements of material facts and/or omitting to state material facts necessary in order to make the statements made about Standard Lithium and its business operations and future prospects in light of the circumstances under which they were made, not misleading, as set forth more particularly herein, and engaged in transactions, practices and a course of business

which operated as a fraud and deceit upon the purchasers of the Company's securities during the Class Period.

- 221. Each of the Individual Defendants' primary liability and controlling person liability arises from the following facts: (i) the Individual Defendants were high-level executives and/or directors at the Company during the Class Period and members of the Company's management team or had control thereof; (ii) each of these defendants, by virtue of their responsibilities and activities as a senior officer and/or director of the Company, was privy to and participated in the creation, development and reporting of the Company's internal budgets, plans, projections and/or reports; (iii) each of these defendants enjoyed significant personal contact and familiarity with the other defendants and was advised of, and had access to, other members of the Company's management team, internal reports and other data and information about the Company's finances, operations, and sales at all relevant times; and (iv) each of these defendants was aware of the Company's dissemination of information to the investing public which they knew and/or recklessly disregarded was materially false and misleading.
- Defendants had actual knowledge of the misrepresentations and/or omissions of 222. material facts set forth herein, or acted with reckless disregard for the truth in that they failed to ascertain and to disclose such facts, even though such facts were available to them. Such defendants' material misrepresentations and/or omissions were done knowingly or recklessly and for the purpose and effect of concealing Standard Lithium's financial well-being and prospects from the investing public and supporting the artificially inflated price of its securities. As demonstrated by Defendants' overstatements and/or misstatements of the Company's business, operations, financial well-being, and prospects throughout the Class Period, Defendants, if they did not have actual knowledge of the misrepresentations and/or omissions alleged, were reckless

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in failing to obtain such knowledge by deliberately refraining from taking those steps necessary to discover whether those statements were false or misleading.

- 223. As a result of the dissemination of the materially false and/or misleading information and/or failure to disclose material facts, as set forth above, the market price of Standard Lithium's securities was artificially inflated during the Class Period. In ignorance of the fact that market prices of the Company's securities were artificially inflated, and relying directly or indirectly on the false and misleading statements made by Defendants, or upon the integrity of the market in which the securities trades, and/or in the absence of material adverse information that was known to or recklessly disregarded by Defendants, but not disclosed in public statements by Defendants during the Class Period, Plaintiff and the other members of the Class acquired Standard Lithium's securities during the Class Period at artificially high prices and were damaged thereby.
- 224. At the time of said misrepresentations and/or omissions, Plaintiff and other members of the Class were ignorant of their falsity, and believed them to be true. Had Plaintiff and the other members of the Class and the marketplace known the truth regarding the problems that Standard Lithium was experiencing, which were not disclosed by Defendants, Plaintiff and other members of the Class would not have purchased or otherwise acquired their Standard Lithium securities, or, if they had acquired such securities during the Class Period, they would not have done so at the artificially inflated prices which they paid.
- 225. By virtue of the foregoing, Defendants violated Section 10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder.

As a direct and proximate result of Defendants' wrongful conduct, Plaintiff and the 226. other members of the Class suffered damages in connection with their respective purchases and sales of the Company's securities during the Class Period.

SECOND CLAIM Violation of Section 20(a) of The Exchange Act **Against the Individual Defendants**

- 227. Plaintiff repeats and re-alleges each and every allegation contained above as if fully set forth herein.
- 228. The Individual Defendants acted as controlling persons of Standard Lithium within the meaning of Section 20(a) of the Exchange Act as alleged herein. By virtue of their high-level positions and their ownership and contractual rights, participation in, and/or awareness of the Company's operations and intimate knowledge of the false financial statements filed by the Company with the SEC and disseminated to the investing public, Individual Defendants had the power to influence and control and did influence and control, directly or indirectly, the decisionmaking of the Company, including the content and dissemination of the various statements which Plaintiff contends are false and misleading. Individual Defendants were provided with or had unlimited access to copies of the Company's reports, press releases, public filings, and other statements alleged by Plaintiff to be misleading prior to and/or shortly after these statements were issued and had the ability to prevent the issuance of the statements or cause the statements to be corrected.
- 229. In particular, Individual Defendants had direct and supervisory involvement in the day-to-day operations of the Company and, therefore, had the power to control or influence the particular transactions giving rise to the securities violations as alleged herein, and exercised the same.

230. As set forth above, Standard Lithium and Individual Defendants each violated Section 10(b) and Rule 10b-5 by their acts and omissions as alleged in this Complaint. By virtue of their position as controlling persons, Individual Defendants are liable pursuant to Section 20(a) of the Exchange Act. As a direct and proximate result of Defendants' wrongful conduct, Plaintiff and other members of the Class suffered damages in connection with their purchases of the Company's securities during the Class Period.

XII. PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for relief and judgment, as follows:

- (a) Determining that this action is a proper class action under Rule 23 of the Federal Rules of Civil Procedure;
- (b) Awarding compensatory damages in favor of Plaintiff and the other Class members against all defendants, jointly and severally, for all damages sustained as a result of Defendants' wrongdoing, in an amount to be proven at trial, including interest thereon;
- (c) Awarding Plaintiff and the Class their reasonable costs and expenses incurred in this action, including counsel fees and expert fees; and
 - (d) Such other and further relief as the Court may deem just and proper.

XIII. DEMAND FOR A TRIAL BY JURY

Plaintiff hereby demands a trial by jury.

Dated: June 29, 2022 GLANCY PRONGAY & MURRAY LLP

By: /s/ Kara M. Wolke
Kara M. Wolke (pro hac vice)
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Lead Counsel

SWORN CERTIFICATION OF PLAINTIFF STANDARD LITHIUM LTD. (SLI) SECURITIES LITIGATION

I, Curtis T. Arata, certify that:

- I have reviewed the Complaint, adopt its allegations, and authorize its filing on my behalf.
- I did not purchase the Standard Lithium Ltd. securities that are the subject of this
 action at the direction of plaintiff's counsel or in order to participate in any private
 action arising under this title.
- 3. I am willing to serve as a representative party on behalf of a class and will testify at deposition and trial, if necessary.
- 4. My transactions in Standard Lithium Ltd. securities during the period set forth in the Complaint are as follows:

(See attached transactions)

- 5. I have not sought to serve, nor served, as a representative party on behalf of a class under this title during the last three years, except for the following:
- 6. I will not accept any payment for serving as a representative party, except to receive my pro rata share of any recovery or as ordered or approved by the court, including the award to a representative plaintiff of reasonable costs and expenses (including lost wages) directly relating to the representation of the class.

I declare under penalty of perjury that the foregoing are true and correct statements.

6/29/2022	Curtis Arata	
Date	Curtis T. Arata	<u>~</u>

Curtis T. Arata's Transactions in Standard Lithium Ltd. (SLI)

Account 1

Date	Transaction Type	Quantity	Unit Price
10/15/2021	Bought	96	\$10.6500
10/15/2021	Bought	14	\$10.6500
10/15/2021	Bought	100	\$10.6500
10/15/2021	Bought	100	\$10.6600
10/15/2021	Bought	292	\$10.6600
10/15/2021	Bought	9,398	\$10.6800
10/18/2021	Sold	-100	\$10.4172
10/18/2021	Sold	-9,400	\$10.4001
10/18/2021	Sold	-450	\$10.4100
10/18/2021	Sold	-50	\$10.4000
10/29/2021	Bought	4,800	\$11.1200
10/29/2021	Bought	4,900	\$11.2581
10/29/2021	Bought	2,000	\$11.2000
11/10/2021	Bought	500	\$9.9375
11/12/2021	Bought	1,700	\$10.2850
11/17/2021	Sold	-100	\$10.0500
11/17/2021	Sold	-100	\$10.0500
11/17/2021	Sold	-800	\$10.0500
11/17/2021	Sold	-1,000	\$10.0500
11/17/2021	Sold	-100	\$10.1100
11/17/2021	Sold	-100	\$10.1100
11/17/2021	Sold	-200	\$10.1100
11/17/2021	Sold	-100	\$10.1100
11/17/2021	Sold	-1,500	\$10.1100
11/17/2021	Sold	-2,000	\$9.8814
11/18/2021	Bought	2,000	\$7.4415

Account 2

Date	Transaction Type	Quantity	Unit Price
 11/12/2021	Bought	50	\$10.3185

PROOF OF SERVICE

I, the undersigned say:

I am not a party to the above case and am over eighteen years old.

On June 29, 2022, I served true and correct copies of the foregoing document, by posting the document electronically to the ECF website of the United States District Court for the Eastern District of New York, for receipt electronically by the parties listed on the Court's Service List.

I affirm under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on June 29, 2022, at New York, New York.

> /s/ Kara M. Wolke Kara M. Wolke